

=> b reg  
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DICTIONARY FILE UPDATES: 30 JAN 2006 HIGHEST RN 873057-98-8

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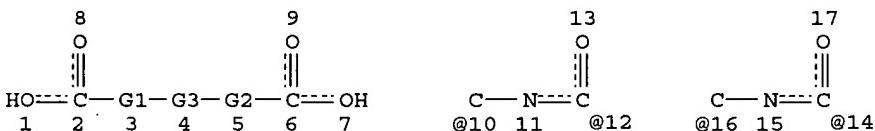
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\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

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<http://www.cas.org/ONLINE/UG/regprops.html>

=> d que sta 122  
L15 STR



REP G1=(1-3) 10-2 12-4

REP G2=(1-3) 14-4 16-6

REP G3=(8-20) C

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 11

CONNECT IS E2 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L22 98 SEA FILE=REGISTRY SSS FUL L15

100.0% PROCESSED 302877 ITERATIONS  
SEARCH TIME: 00.00.08

98 ANSWERS

=> b hcap  
FILE 'HCAPLUS' ENTERED AT 14:55:44 ON 31 JAN 2006  
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FILE COVERS 1907 - 31 Jan 2006 VOL 144 ISS 6  
FILE LAST UPDATED: 30 Jan 2006 (20060130/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all fhitstr 138 tot

L38 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:1051478 HCAPLUS  
DN 142:205240  
ED Entered STN: 08 Dec 2004  
TI Stable spherical hollow particles composed of bola-form amides via non-covalent interactions  
AU Matsuzawa, Yoko; Kogiso, Masaki; Matsumoto, Mutsuyoshi; Shimizu, Toshimi; Shimada, Kayori; Itakura, Masanao; Kinugasa, Shinichi  
CS Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, 305-8565, Japan  
SO Journal of Materials Chemistry (2004), 14(24), 3532-3539  
CODEN: JMACEP; ISSN: 0959-9428  
PB Royal Society of Chemistry  
DT Journal  
LA English  
CC 66-2 (Surface Chemistry and Colloids)  
Section cross-reference(s): 34  
AB Dipeptide-based bola-form amides, which self-assemble into fibrous structures under usual conditions, formed stable micrometer-sized hollow spheres directed by hydrophilic interfaces in aqueous solution. The chemical structure of the bola-form amide and the surface properties of the substrate proved to significantly affect the self-assembly process. Bis(N- $\alpha$ -amide-1-valyl-1-valine)1,n-alkane dicarboxylate (n = 10: (Val)2C10, 12: (Val)2C12) and bis(N- $\alpha$ -amide-1-isoleucyl-1-isoleucine)1,n-alkane dicarboxylate (n = 10: (i-Leu)2C10) produced hollow spheres, whereas (Val)2Cn (n = 7-9, 11) and bis(N- $\alpha$ -amide-1-valyl-1-methionine)C10 ((Val/Met)2C10) formed no spheres. Static light scattering measurements revealed that the rod-like micelles of (Val)2C10, (Val)2C12 and (i-Leu)2C10 were converted to the hollow spheres via vesicle-like intermediates. The vesicle-like intermediates gathered together to form the spherical hollow particles with the aid of the surface of hydrophilic glass substrates. On the other hand, (Val)2Cn (n = 7-9, 11) and (Val/Met)2C10 directly self-assembled into fibrous structures from rod-like micelles without passing through the vesicle-like intermediates. The carbon number of the spacer, bulkiness of the head groups and surface

properties of the substrate played critical roles in determining the self-assembly. FT-IR, XRD and DSC measurements revealed that the packing of the bola-form amides in the hollow spheres differed from that in the fibrous assembly. Mols. in the spheres were more tightly packed, as in the crystalline state, than those in fibrous structures.

ST spherical hollow particle bolaform amide noncovalent self assembly  
 IT Phase transition  
     (formation of stable spherical hollow sphere with bola-form amide)  
 IT Self-assembly  
     (formation of stable spherical hollow sphere with bola-form amide via)  
 IT Spheres  
     (hollow, vesicle; formation of stable spherical hollow sphere with  
       bola-form amide)  
 IT Micelles  
     (nonionic; formation of stable spherical hollow sphere with bola-form  
       amide)  
 IT 214075-06-6 214075-07-7 300593-94-6  
 300593-95-7 300593-96-8 300593-97-9  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
 (Physical process); PROC (Process)  
     (formation of stable spherical hollow sphere with bola-form amide)  
 IT 836613-03-7P 836613-04-8P  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
 (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC  
 (Process)  
     (formation of stable spherical hollow sphere with bola-form amide)

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD

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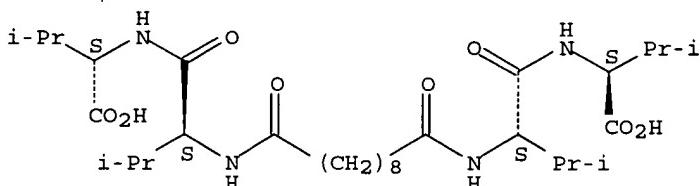
IT 214075-06-6

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (formation of stable spherical hollow sphere with bola-form amide)

RN 214075-06-6 HCPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 2 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2004:311019 HCPLUS

DN 140:309440

ED Entered STN: 16 Apr 2004

TI Fine spherical particles with satisfactory molecular orientation,  
 spherical microcapsules comprising the same, and processes for producing  
 theseIN Matsuzawa, Yoko; Matsumoto, Mutsuyoshi; Kogiso,  
 Masaki; Shimizu, ToshimiPA National Institute of Advanced Industrial Science and Technology,  
 Japan

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C07K-0005/00

ICS C07K-0001/04; A61K-0047/48; A61K-0009/50; A61K-0007/00

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO2004031214	A1	20040415	2003WO-JP12636	20031002 --	
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 JP2004123663 A2 20040422 2002JP-0293533 20021007 <--  
 JP2004358369 A2 20041224 2003JP-0160291 20030605 <--  
 EP---1550670 A1 20050706 2003EP-0753983 20031002 <--  
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 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 PRAI 2002JP-0293533 A 20021007 <--  
 2003JP-0160291 A 20030605 <--  
 2003WO-JP12636 W 20031002 <--

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004031214	ICM	C07K-0005/00
	ICS	C07K-0001/04; A61K-0047/48; A61K-0009/50; A61K-0007/00
	IPCI	C07K0005-00 [ICM, 7]; C07K0001-04 [ICS, 7]; A61K0047-48 [ICS, 7]; A61K0009-50 [ICS, 7]; A61K0007-00 [ICS, 7]
	ECLA	A61K008/11C; A61K008/64; A61K047/48W8B; A61K047/48W14; A61Q019/00; B01J013/02 <--
JP2004123663	IPCI	C07K0005-062 [ICM, 7]; A61K0007-00 [ICS, 7]; A61L0027-00 [ICS, 7]; C07K0001-04 [ICS, 7]
	FTERM	4C081/BA03; 4C081/BB03; 4C081/CA241; 4C081/DA11; 4C081/DB02; 4C081/EA02; 4C083/BB26; 4C083/CC01; 4C083/FF01; 4H045/AA10; 4H045/AA20; 4H045/BA11; 4H045/BA62; 4H045/BA63; 4H045/EA15; 4H045/EA34; 4H045/EA65; 4H045/FA82 <--
JP2004358369	IPCI	B01J0013-04 [ICM, 7]; A23L0001-00 [ICS, 7]; A61K0009-50 [ICS, 7]
	FTERM	4B035/LE01; 4B035/LG04; 4B035/LK14; 4B035/LP36; 4C076/AA64; 4C076/EE41H; 4C076/FF21; 4C076/GG26; 4G005/AA01; 4G005/BA20; 4G005/BB15; 4G005/DA01X; 4G005/DA05X; 4G005/DA16X; 4G005/DA17X; 4G005/DA18X; 4G005/DC01Z; 4G005/DC26Z; 4G005/DC41Z; 4G005/DE01X; 4G005/DE08X; 4G005/EA01; 4G005/EA02; 4G005/EA03; 4G005/EA05; 4G005/EA06 <--
EP---1550670	IPCI	C07K0005-00 [ICM, 7]; C07K0001-04 [ICS, 7]; A61K0047-48 [ICS, 7]; A61K0009-50 [ICS, 7]; A61K0007-00 [ICS, 7]
	ECLA	A61K008/11C; A61K008/64; A61K047/48W8B; A61K047/48W14; A61Q019/00; B01J013/02 <--

OS MARPAT 140:309440

AB Disclosed are fine spherical particles with satisfactory mol. orientation which are based on film formation of a bola-form compound and are useful in the field of fine chems. such as functional materials and medical materials, the electronic/information field, etc.; spherical microcapsules having a hydrophilic core substance encapsulated therein; and processes for producing the spherical particles and the microcapsules. The fine spherical particles can be produced by immersing a hydrophilic substrate in an aqueous solution of a salt of the bola-form amide and precipitating fine particles

in an acid atmospheric. The fine spherical particles and spherical microcapsules obtained have a particle diameter of 0.01 to 100  $\mu\text{m}$ . For example, an aqueous solution containing [bis(N- $\alpha$ -amido-L-valyl-L-valine)-1,10-decane]dicarboxylic acid and pyranine was prepared and hydrophilically treated glass plate was immersed in the solution and left to precipitate pyranine-encapsulated spherical microcapsules.

ST bola form amide spherical particle drug encapsulation; microparticle bisamidovalylvalinedecanedicarboxylate pyranine encapsulation

IT Ceramics  
 (as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT Glass, miscellaneous

Mica-group minerals, miscellaneous

Plastics, miscellaneous

RL: MSC (Miscellaneous)

(as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT Encapsulation

## Microparticles

(fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT Drug delivery systems

(microcapsules; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT 7631-86-9, Silica, miscellaneous

RL: MSC (Miscellaneous)

(as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT 6358-69-6, Pyranine 214075-07-7

RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);

PYP (Physical process); THU (Therapeutic use); BIOL (Biological study);

PROC (Process); USES (Uses)

(fine spherical particles with satisfactory mol. orientation of bola-form compound)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 214075-07-7

RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process);

PYP (Physical process); THU (Therapeutic use); BIOL (Biological study);

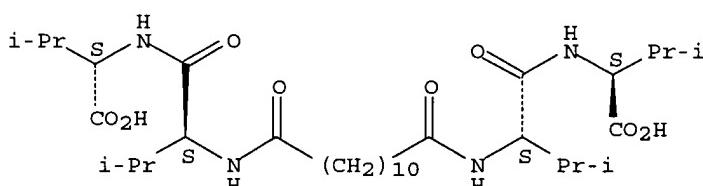
PROC (Process); USES (Uses)

(fine spherical particles with satisfactory mol. orientation of bola-form compound)

RN 214075-07-7 HCPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 3 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2004:295421 HCPLUS

DN 141:60325

ED Entered STN: 12 Apr 2004

TI Metal-complexed nanofiber formation in water from dicarboxylic valylvaline bolaamphiphiles

AU Kogiso, Masaki; Okada, Yuji; Yase, Kiyoshi; Shimizu, Toshimi

CS Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST), 1-1-1 Higashi, Tsukuba, Ibaraki, 305-8565, Japan

SO Journal of Colloid and Interface Science (2004), 273(2), 394-399  
CODEN: JCISAS; ISSN: 0021-9797

PB Elsevier Science

DT Journal

LA English

CC 66-4 (Surface Chemistry and Colloids)  
Section cross-reference(s): 78

- AB Nanofiber formation of dipeptide-based bolaamphiphiles, bis ( $N$ - $\alpha$ -amide-L-valyl-L-valine) 1,n-alkane dicarboxylate ( $n=6, 8, 10,$  and  $12$ ) in water was analyzed by TEM, SEM, IR, and XRD. The bolaamphiphiles proved to be coordinated to divalent transition-metal cations, such as  $Co^{2+}$ ,  $Ni^{2+}$ ,  $Cu^{2+}$ , and  $Zn^{2+}$ , giving ppts., colloidal dispersions (loose hydrogels), and hydrogels upon self-assembly at  $23$  or  $70$   $^{\circ}C$ . Longer oligomethylene chains and strong interaction between the metal cations and the carboxylate anions are responsible for the hydrogel formation. Energy-filtering transmission electron microscopy (EF-TEM) and field-emission SEM (EF-SEM) images revealed that the colloidal dispersions and the hydrogels consist of a large number of nanofibers with widths of  $15-20$  nm and lengths of several micrometers. FT-IR and powder XRD measurement supported the existence of a  $\beta$ -sheet structure-based nanofibers complexing with metal cations.
- ST metal complexed nanofiber dicarboxylic valylvaline bolaamphiphile morphol
- IT Microstructure
- Nanofibers  
 (formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-48-4D, Cobalt, complex with dicarboxylic valylvaline bolaamphiphile  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (cobalt (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-50-8D, Copper, complex with dicarboxylic valylvaline bolaamphiphile  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (copper (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 214075-05-5D, complex with metal ion 214075-06-6D, complex with metal ion 214075-07-7D, complex with metal ion 300593-97-9D, complex with metal ion  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-02-0D, Nickel, complex with dicarboxylic valylvaline bolaamphiphile  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (nickel (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-66-6D, Zinc, complex with dicarboxylic valylvaline bolaamphiphile  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (zinc (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
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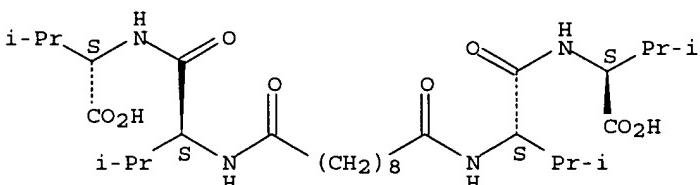
IT 214075-06-6D, complex with metal ion

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)

RN 214075-06-6 HCAPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:758431 HCAPLUS

DN 140:9130

ED Entered STN: 28 Sep 2003

TI Hydrophilic interface-directed self-assembly of bola-form amide into hollow spheres

AU Matsuzawa, Yoko; Kogiso, Masaki; Matsumoto, Mutsuyoshi; Shimizu, Toshimi; Shimada, Kayori; Itakura, Masanao; Kinugasa, Shinichi

CS Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, 305-8565, Japan

SO Advanced Materials (Weinheim, Germany) (2003), 15(17), 1417-1420  
 CODEN: ADVMEW; ISSN: 0935-9648

PB Wiley-VCH Verlag GmbH & Co. KGaA

DT Journal

LA English

CC 66-4 (Surface Chemistry and Colloids)

AB A novel method was applied to produce spherical hollow particles composed of a bola-form amide [bis(N- $\alpha$ -amido-L-valyl-L-valine)-1,10-decane]dicarboxylate, Val2C10] directed by interaction with hydrophilic substrates and using pH titration in aqueous solution. In the presence of hydrophilic substrates, rod-like micelles self-assembled to form spherical vesicles, which further gathered together to form spherical hollow particles. But the spherical vesicles assembled into fibers in the absence of these substrates. The obtained hollow particles can encapsulate materials that are also present in the solution during the self-assembling processes.

ST bola form amide hollow sphere self assembly hydrophilic substrate

IT Self-assembly

(preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

IT Particles

(spherical; preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

IT 6358-69-6, Pyranine

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(incorporation of dye mols. into hollow spheres of bola-form amide)

IT 214075-07-7

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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IT 214075-07-7

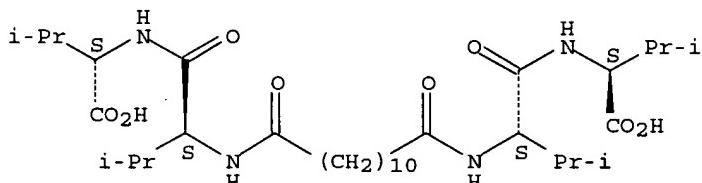
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

RN 214075-07-7 HCAPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:146503 HCAPLUS

DN 138:196946

ED Entered STN: 26 Feb 2003

TI Aggregate of metal nano-microparticles with linear arrangement, and its preparation method

IN Ogiso, Masaki; Shimizu, Toshimi

PA Japan Science and Technology Corporation, Japan; National Institute of Advanced Industrial Science and Technology; Japan Science and Technology Agency

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07K-0005/062

ICS B22F-0001/00; B22F-0009/24; C07K-0001/06

6

CC 76-2 (Electric Phenomena)  
 Section cross-reference(s): 34

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP2003055397	A2	20030226	2001JP-0247557	20010817
	JP---3625436	B2	20050302		
PRAI	2001JP-0247557			20010817	

*PO*

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP	2003055397	ICM	C07K-0005/062
		ICS	B22F-0001/00; B22F-0009/24; C07K-0001/06
		IPCI	C07K0005-062 [ICM, 7]; B22F0001-00 [ICS, 7]; B22F0009-24 [ICS, 7]; C07K0001-06 [ICS, 7]

OS MARPAT 138:196946

AB A metal nano-microparticle aggregate is provided, in which metal nano-microparticles are arranged in a linear fashion sep. from each other. The metal nano-microparticle aggregate is prepared by chemical reducing the hybrid nanofiber formed by adding metal ions (e.g., cupric ion) to a double-headed peptide lipid in water using a relatively weak reducing agent (e.g., hydrazine) of 2-5 equiv to the double-headed peptide lipid.

ST metal nano microparticle aggregate nanofiber peptide lipid

IT Lipopeptides

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (double-headed; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Microparticles

(metal; nano-; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Molecular electronic devices

(nanoelectronic; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Aggregates

Nanofibers

Reducing agents

(preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Metals, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation method for metal nano-microparticle aggregate with linear arrangement)

IT 142-71-2, Cupric acetate 302-01-2, Hydrazine, reactions 7440-50-8,  
 Copper, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation method for metal nano-microparticle aggregate with linear arrangement)

IT 214075-07-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation method for metal nano-microparticle aggregate with linear arrangement)

IT 214075-07-7P

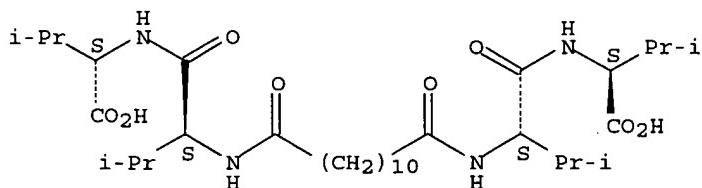
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation method for metal nano-microparticle aggregate with linear arrangement)

RN 214075-07-7 HCPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 6 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:808639 HCPLUS  
 DN 138:45219  
 ED Entered STN: 24 Oct 2002  
 TI One-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers  
 AU Kogiso, Masaki; Yoshida, Kaname; Yase, Kiyoshi; Shimizu, Toshimi  
 CS Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba Central 5, 1-1-1 Higashi, Tsukuba, Ibaraki, 305-8565, Japan  
 SO Chemical Communications (Cambridge, United Kingdom) (2002), (21), 2492-2493  
 CODEN: CHCOFS; ISSN: 1359-7345  
 PB Royal Society of Chemistry  
 DT Journal  
 LA English  
 CC 66-3 (Surface Chemistry and Colloids)  
 AB One-dimensional organization of copper nanoparticles has been achieved by chemical reduction using lipid-copper hybrid nanofibers as a template; the reduction of copper ions and the resulting formation of copper clusters occurred at intervals of 2-5 nm along the nanofibers.  
 ST copper nanoparticle lipid hybrid nanofiber redn  
 IT Hybrid organic-inorganic materials  
 Nanofibers  
 Nanoparticles  
 Nanostructures  
 Order  
 Reduction  
 Surface structure  
 (one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)  
 IT Lipids, processes  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)  
 IT 478921-81-2  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)  
 IT 7440-50-8P, Copper, processes  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PREP (Preparation); PROC (Process)  
 (one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)  
 IT 4180-12-5, Copper acetate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)  
 IT 302-01-2, Hydrazine, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(reduction agent; one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 478921-81-2

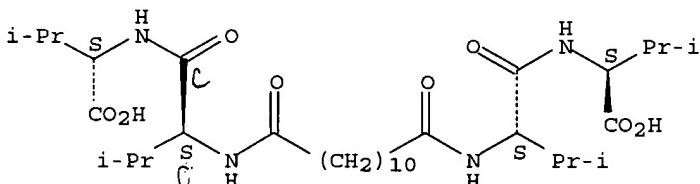
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)

RN 478921-81-2 HCPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L38 ANSWER 7 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2000:507875 HCPLUS

DN 134:102123

ED Entered STN: 27 Jul 2000

TI Organic supramolecular self-assembled materials stabilized by multiple hydrogen bonds

AU Shimizu, Toshimi

CS National Institute of Materials and Chemical Research, Ibaraki, 305-8565,

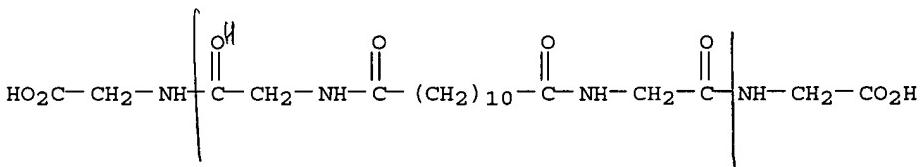
Japan  
 SO Transactions of the Materials Research Society of Japan (1999), 24(3),  
 431-436  
 CODEN: TMRJE3; ISSN: 1382-3469  
 PB Materials Research Society of Japan  
 DT Journal  
 LA English  
 CC 40-1 (Textiles and Fibers)  
 AB Self assembling properties and morphologies of synthetic bola-form amphiphiles (bolaamphiphiles) are described in connection with the formation of multiple hydrogen bonds. The D-glucose-, oligoglycine-, and nucleobase-based bolaamphiphiles self assembled in aqueous media to form well defined helical fibers, vesicle encapsulated microtubes, and double helical ropes, resp. The formation strongly depends on the length and even or odd carbon nos. of the spacer alkylene chains. Possible self-assembling models for the mol. arrangements within the assemblies are proposed on the basis of IR spectroscopy and X-ray structural analyses. In addition, polymerization of bolaform butadiyne 1-glucosamide in self-assembled nanoscale fiber morphol. is also discussed.  
 ST self assembly bolaform amphiphile sugar peptide nucleobase fiber  
 IT Amphiphiles  
 (bolaform; organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Hydrogen bond  
 Self-assembly  
 (organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Polyamides, processes  
 Polydiacetylenes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Polymer chains  
 (orientation; organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Polymer chains  
 (packing; organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Synthetic polymeric fibers, processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (self-assembled bolaform amphiphiles; organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT Molecular structure-property relationship  
 (self-assembly; organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 IT 178315-05-4 188481-30-3 188481-32-5 191734-06-2  
 216597-16-9 216597-19-2 219798-46-6  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (organic supramol. self-assembled materials stabilized by multiple hydrogen bonds)  
 RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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IT 191734-06-2

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (organic supramol. self-assembled materials stabilized by multiple  
 hydrogen bonds)

RN 191734-06-2 HCAPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX  
 NAME)

L38 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:507629 HCAPLUS

DN 133:282054

ED Entered STN: 27 Jul 2000

TI Self-assembled peptide fibers from valylvaline bola-amphiphiles by a parallel β-sheet network

AU Kogiso, M.; Okada, Y.; Hanada, T.; Yase, K.; Shimizu, T.

CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki,  
 305-8565, JapanSO Biochimica et Biophysica Acta, General Subjects (2000), 1475(3), 346-352  
 CODEN: BBGSB3; ISSN: 0304-4165

PB Elsevier B.V.

DT Journal

LA English

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 75

AB A series of dipeptide-based bola-amphiphiles, bis(N-α-amide-L-valyl-L-valine) 1,n-alkane dicarboxylate (n = 4-12), have been synthesized. The bola-amphiphiles with n = 4 and 6 self-assembled to form crystalline solids in water, whereas those with n = 7-12 produced peptide fibers. FT-IR spectroscopy and X-ray diffraction patterns revealed that the peptide fibers have parallel-type β-sheet networks between the valylvaline units. FT-IR deconvolution study of carboxyl regions indicated that these crystalline solids and peptide fibers are stabilized by interlayer bifurcated and intralayer lateral hydrogen-bond networks between the end carboxylic acid groups, resp.

ST valylvalyl alkanedioic bola amphiphile prep fiber structure

IT Amphiphiles

(bolaform; self-assembled peptide fibers from valylvaline

bola-amphiphiles by parallel  $\beta$ -sheet network)

IT Hydrogen bond  
Molecular structure  
Self-assembly  
 $\beta$ -Sheet  
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel  $\beta$ -sheet network)

IT Peptides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel  $\beta$ -sheet network)

IT 214075-05-5P 214075-06-6P 214075-07-7P 300593-92-4P  
300593-93-5P 300593-94-6P 300593-95-7P 300593-96-8P  
300593-97-9P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel  $\beta$ -sheet network)

IT 111-16-0, 1,7-Heptanedioic acid 111-20-6, Decanedioic acid, reactions  
123-99-9, 1,9-Nonanedioic acid, reactions 124-04-9, Hexanedioic acid,  
reactions 505-48-6, 1,8-Octanedioic acid 505-52-2, 1,13-Tridecanedioic  
acid 693-23-2, Dodecanedioic acid 821-38-5, Tetradecanedioic acid  
1852-04-6, Undecanedioic acid 77935-37-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel  $\beta$ -sheet network)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

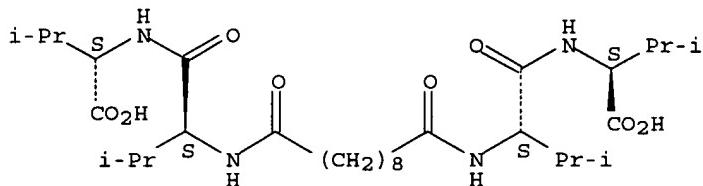
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IT 214075-06-6P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel  $\beta$ -sheet network)

RN 214075-06-6 HCAPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)]

Absolute stereochemistry.



L38 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:748662 HCAPLUS  
 DN 131:351679  
 ED Entered STN: 25 Nov 1999  
 TI Preparation of lipopeptide microfibrils  
 IN Ogiso, Masaki; Shimizu, Toshimi  
 PA Agency of Industrial Sciences and Technology, Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C07K-0005/062  
 ICS C07C-0233/47; C07K-0001/14; C07K-0005/083; D01F-0004/00  
 CC 34-3 (Amino Acids, Peptides, and Proteins)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP--11322787	A2	19991124	1999JP-0066259	19990312
	JP---3012932	B2	20000228		
	US---6136956	A	20001024	1999US-0261156	19990303
PRAI	1998JP-0062548	A	19980313		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 11322787	ICM	C07K-0005/062
		ICS	C07C-0233/47; C07K-0001/14; C07K-0005/083; D01F-0004/00
		IPCI	C07K0005-062 [ICM,6]; C07C0233-47 [ICS,6]; C07K0001-14 [ICS,6]; C07K0005-083 [ICS,6]; D01F0004-00 [ICS,6]
	US---6136956	IPCI	C07K0016-00 [ICM,7]; A61K0038-00 [ICS,7]
		NCL	530/359.000; 530/331.000; 530/333.000; 530/343.000
		ECLA	A61K047/48W22; C07K005/06A1B2

OS MARPAT 131:351679

AB Title microfibrils, useful as supports, adsorbents, biocompatible materials, microelectronic materials, etc. (no data), are prepared by dissolving HO[COCH(CHMe<sub>2</sub>)NH]mCO(CH<sub>2</sub>)nCO[NHCH(CHMe<sub>2</sub>)CO]mOH (m = 1-3; n = 6-18) into aqueous alkali metal hydroxide solns. and allowing to stand under saturated vapor pressure of 1-5 weight% aqueous acid solns. N,N'-bis(L-valyl-L-valyl)decane-1,10-dicarboxamide microfibrils were prepared in an aqueous NaOH solution under AcOH vapor.

ST lipopeptide microfibril prep; valyldecanedicarboxamide microfibril prep; decanedicarboxamide valylvalyl microfibril prep

IT Fibril  
 (microfibril; preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

IT Acids, uses  
 Alkali metal hydroxides  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

IT Lipopeptides  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under

acid vapors)

IT 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 79-43-6,  
 Dichloroacetic acid, uses 124-38-9, Carbon dioxide, uses 1310-58-3,  
 Potassium hydroxide, uses 1310-65-2, Lithium hydroxide 1310-73-2,  
 Sodium hydroxide, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

IT 214075-05-5 214075-06-6 250266-83-2  
 250266-84-3 250266-85-4  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

IT 214075-07-7P  
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic  
 preparation); PREP (Preparation); PROC (Process)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

IT 111-20-6, Decanedioic acid, reactions 505-48-6, 1,6-Hexanedicarboxylic  
 acid 693-23-2, 1,10-Decanedicarboxylic acid 2424-92-2,  
 1,18-Octadecanedicarboxylic acid 250266-86-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

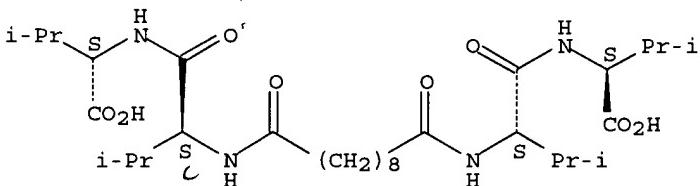
IT 77935-37-6P 111072-21-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

IT 214075-06-6  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under  
 acid vapors)

RN 214075-06-6 HCPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



L38 ANSWER 10 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:559245 HCPLUS  
 DN 132:167596  
 ED Entered STN: 02 Sep 1999  
 TI Intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic  
 valylvaline bolaamphiphiles  
 AU Kogiso, Masaki; Hanada, Takeshi; Yase, Kiyoshi; Shimizu,  
 Toshimi  
 CS National Institute of Materials and Chemical Research, Ibaraki, 305-8565,  
 Japan  
 SO Polymer Preprints (American Chemical Society, Division of Polymer  
 Chemistry) (1999), 40(2), 1128-1129  
 CODEN: ACPPAY; ISSN: 0032-3934  
 PB American Chemical Society, Division of Polymer Chemistry  
 DT Journal  
 LA English  
 CC 40-2 (Textiles and Fibers)

AB Dicarboxylic L-valyl-L-valine bolaamphiphiles with different lengths of alkylene spacers ( $n = 6, 7, 8, 9$ , and  $10$ ) were synthesized. Vapor diffusion of dilute AcOH into their aqueous solns. produced a hydrogel from  $n = 7-12$ , but crystalline solids from  $n = 6$ . Energy-filtering transmission electron microscopy revealed that a number of thin fibers with widths of 10-30 nm construct the hydrogel. These self-assemblies were formed at pH that corresponds to a fully protonated state. FT-IR spectra of the dried nano-fibers revealed that the peptide head groups form parallel beta-sheet structure. Curve-fitting results in the FT-IR COOH band region indicated that intralayer lateral interactions were dominant in the nano-fibers.

ST valylvaline bolaamphiphile intralayer hydrogen bond nanofiber self assembly

IT Amphiphiles

(bolaform; intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT Hydrogen bond

IR spectra

Self-assembly

(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT Synthetic polymeric fibers, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT 258875-10-4 258875-11-5 258875-12-6 258875-13-7

258875-14-8

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Hanabusa, K; J Chem Soc, Chem Commun 1993, P391
- (2) Imae, T; J Am Chem Soc 1992, V114, P3414 HCPLUS
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- (4) Kogiso, M; Langmuir 1998, V14, P4978 HCPLUS
- (5) Kogiso, M; Supramol Chem 1998, V9, P183 HCPLUS
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- (9) Snyder, R; J Mol Spectrosc 1961, V7, P116 HCPLUS
- (10) Sun, L; Langmuir 1992, V8, P2101 HCPLUS
- (11) Toniolo, C; Biopolymers 1977, V16, P219 HCPLUS
- (12) Trager, O; J Am Chem Soc 1997, V119, P9120
- (13) Vand, V; Acta Crystallogr 1951, V4, P104 HCPLUS

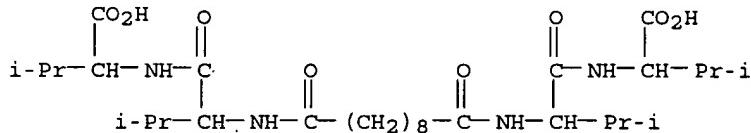
IT 258875-12-6

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

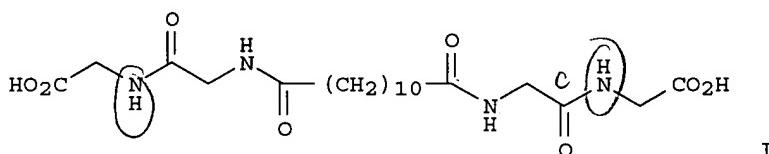
(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

RN 258875-12-6 HCPLUS

CN Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[valyl- (9CI) (CA INDEX NAME)



ED Entered STN: 22 Jan 1999  
 TI Cross-section molecular imaging of supramolecular microtubes with contact atomic force microscopy  
 AU Shimizu, Toshimi; Ohnishi, Satomi; Kogiso, Masaki  
 CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305-8565, Japan  
 SO Angewandte Chemie, International Edition (1998), 37(23), 3260-3262  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PB Wiley-VCH Verlag GmbH  
 DT Journal  
 LA English  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 66  
 GI

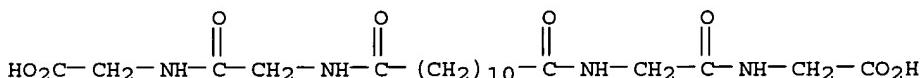


AB Vertical profiles along the mol. long axis within the microtube composed of glycylglycine bolaamphiphile I, examined by contact atomic force microscopy (AFM) in air, showed a molecularly resolved layered structure within the tube membranes.  
 ST glycylglycine bolaamphiphile supramol microtube contact atomic force microscopy  
 IT Atomic force microscopy  
     (contact; cross-section mol. imaging of supramol. glycylglycine bolaamphiphile microtubes with contact atomic force microscopy)  
 IT Supramolecular structure  
     (microtube; cross-section mol. imaging of supramol. glycylglycine bolaamphiphile microtubes with contact atomic force microscopy)  
 IT 191734-06-2  
 RL: PRP (Properties)  
     (cross-section mol. imaging of supramol. glycylglycine bolaamphiphile microtubes with contact atomic force microscopy)

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

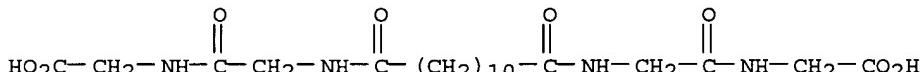
- RE
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  - (14) Menger, F; J Am Chem Soc 1994, V116, P5987 HCPLUS
  - (15) Nostrum, C; Chem Commun 1996, P2385
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  - (17) Shimizu, T; J Am Chem Soc 1997, V119, P6209 HCPLUS
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  - (20) Tardieu, A; J Mol Biol 1973, V75, P711 HCPLUS.

(21) Tuzov, I; Adv Mater 1995, V7, P656 HCAPLUS  
 IT 191734-06-2  
 RL: PRP (Properties)  
 (cross-section mol. imaging of supramol. glycylglycine bolaamphiphile  
 microtubes with contact atomic force microscopy)  
 RN 191734-06-2 HCAPLUS  
 CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX  
 NAME)



L38 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:739530 HCAPLUS  
 DN 130:38701  
 ED Entered STN: 20 Nov 1998  
 TI Supramolecular polyglycine II-type structure of glycylglycine  
 bola-amphiphile  
 AU Kogiso, Masaki; Masuda, Mitsutoshi; Shimizu, Toshimi  
 CS Dep. Organic Materials, Natl. Inst. Materials Chem. Res., Tsukuba, 305,  
 Japan  
 SO Supramolecular Chemistry (1998), 9(3), 183-189  
 CODEN: SCHEER; ISSN: 1061-0278  
 PB Gordon & Breach Science Publishers  
 DT Journal  
 LA English  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 75  
 AB A bola-amphiphile with a glycylglycine unit at each end,  
 $\text{N},\text{N}'\text{-bis}[(\text{carboxymethyl})\text{carbamoylmethyl}]$ dodecanediamide, was synthesized.  
 The crystal structure was determined by single-crystal x-ray anal. [space group  
 $\text{P}21/\text{a}$ ;  $a = 8.678(3)$ ,  $b = 4.873(4)$ ,  $c = 27.161(3)$  Å,  $\beta = 92.68(2)$ °,  
 $Z = 2$ ,  $D_c = 1.33$  g/cm<sup>3</sup>,  $R = 0.051$  for 2095 data]. The 2 halves of the mol.  
 are related by a center of symmetry and have a folded  $(\text{CH}_2)_2\text{CO}$   
 conformation (T.hivin.GS or TG.hivin.S). The mols. are arranged in a  
 layered structure along the c-axis, forming a linear polymol. chain  
 stabilized by acid-acid dimerization at each end. Each chain is arranged  
 in a pseudo-hexagonal lattice stabilized by 3D H-bond networks between  
 amide groups.  
 ST glycylglycine bola amphiphile prepn structure; polyglycine II structure  
 glycylglycine bola amphiphile; mol structure glycylglycine bola  
 amphiphile; crystal structure glycylglycine bola amphiphile  
 IT Amphiphiles  
 (bolaform; preparation and structure of glycylglycine bola-amphiphile)  
 IT Hydrogen bond  
 (hydrogen bonding of glycylglycine bola-amphiphile)  
 IT Crystal structure  
 Molecular structure  
 (of glycylglycine bola-amphiphile)  
 IT Bond angle  
 (torsional; in glycylglycine bola-amphiphile)  
 IT 191734-06-2P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (crystal structure, torsion angles, and hydrogen bonding)  
 IT 693-23-2, Dodecanedioic acid 7797-34-4, Glycylglycine benzyl ester  
 hydrochloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation and structure of glycylglycine bola-amphiphile)  
 RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
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 (19) Masuda, M; Chem Commun 1996, P1057 HCPLUS  
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**IT 191734-06-2P**  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (crystal structure, torsion angles, and hydrogen bonding)  
**RN 191734-06-2 HCPLUS**  
**CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)**



- L38 ANSWER 13 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:544935 HCPLUS  
 DN 129:276302  
 ED Entered STN: 27 Aug 1998  
 TI Intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles  
 AU Kogiso, Masaki; Hanada, Takeshi; Yase, Kiyoshi; Shimizu, Toshimi  
 CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305-8565, Japan  
 SO Chemical Communications (Cambridge) (1998), (17), 1791-1792  
 CODEN: CHCOFS; ISSN: 1359-7345  
 PB Royal Society of Chemistry  
 DT Journal  
 LA English  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 75  
 AB Dicarboxylic L-valyl-L-valine bolaamphiphiles produced nanoscale fibers with widths of 10-30 nm, via proton-triggered self-assembly in water, which are dominated by both intralayer, lateral hydrogen-bond networks

between end carboxylic acid groups and parallel  $\beta$ -sheet networks between amide groups.

ST valylvaline bolaamphiphile prep fiber structure

IT Amphiphiles  
Hydrogen bond  
Molecular structure  
Self-assembly  
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT Peptides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT 214075-05-5P 214075-06-6P 214075-07-7P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT 111-20-6, Decanedioic acid, reactions 505-48-6, Octanedioic acid 693-23-2, Dodecanedioic acid 101222-19-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

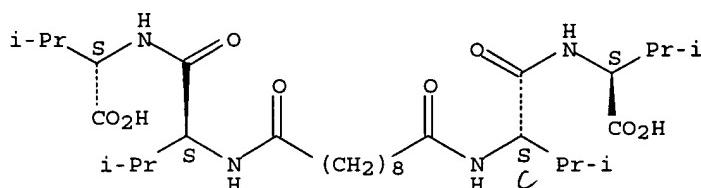
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- (2) Dong, Y; Macromolecules 1997, V30, P1111
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- (24) Vand, V; Acta Crystallogr 1951, V4, P104 HCPLUS

IT 214075-06-6P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

RN 214075-06-6 HCPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

*✓**B*

- L38 ANSWER 14 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:485933 HCPLUS  
 DN 129:245450  
 ED Entered STN: 05 Aug 1998  
 TI Dicarboxylic Oligopeptide Bolaamphiphiles: Proton-Triggered Self-Assembly of Microtubes with Loose Solid Surfaces  
 AU Kogiso, Masaki; Ohnishi, Satomi; Yase, Kiyoshi; Masuda, Mitsutoshi; Shimizu, Toshimi  
 CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305, Japan  
 SO Langmuir (1998), 14(18), 4978-4986  
 CODEN: LANGD5; ISSN: 0743-7463  
 PB American Chemical Society  
 DT Journal  
 LA English  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 75  
 AB A new family of oligopeptide-based bolaamphiphiles, glycylglycine-, glycylglycylglycine-, sarcosylsarcosine-, L-prolyl-L-proline-, glycylsarcosylsarcosine-, and glycyl-L-prolyl-L-proline-based bolaamphiphiles with a dicarboxylic headgroup at each end, has been synthesized. The oligopeptide fragments were linked via an amide bond to a long-chain  $\alpha,\omega$ -dicarboxylic acid as a hydrocarbon spacer. Self-assembling properties of these bolaamphiphiles in water have been studied by light and cryogenic temperature transmission electron microscopy, IR spectroscopy, and pH titration. Only sodium or potassium salts (acid soap) of the bolaamphiphiles  $(\text{CH}_2)_n(\text{CO})_2[\text{Gly-Gly-OH}]_2$  [ $n = 6, 8, 10$  (1e)] and  $(\text{CH}_2)_n(\text{CO})_2[\text{Gly-Gly-Gly-OH}]_2$  ( $n = 6, 10$ ) produced well-defined microtubes of 1-3- $\mu\text{m}$  diameter with closed ends. All the tubes encapsulated a number of vesicular assemblies inside the aqueous compartment. The tube formation strongly depends on the connecting alkylene chain length, the alkylene even-odd carbon nos., and constituent amino acid residues. Vectorial formation of acid-anion dimers and loose interpeptide hydrogen-bond networks are responsible for the microtube self-assembly. The atomic force microscopic observation of the microtube made of 1e revealed a distorted hexagonal arrangement of the headgroups on the surface. A self-assembling model and the tube formation mechanism are also discussed from the viewpoint of proton-triggered self-assembly.  
 ST dicarboxylic peptide bolaamphiphile prepn selfassembly  
 IT Amphiphiles  
 Molecular structure  
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)  
 IT Peptides, preparation  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)  
 IT 143673-93-2P 191734-06-2P 197315-14-3P 197315-15-4P  
 197315-16-5P 197315-17-6P 197315-18-7P 200282-87-7P  
 213327-83-4P 213327-84-5P 213327-85-6P  
 213327-86-7P 213327-87-8P 213327-88-9P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)  
 IT 693-23-2, Dodecanedioic acid 17293-96-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their  
 proton-triggered self-assembly properties)

IT 197315-22-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their  
 proton-triggered self-assembly properties)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

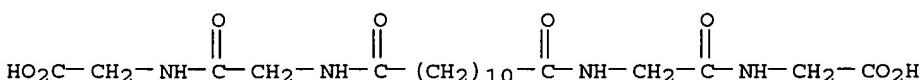
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IT 191734-06-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their  
 proton-triggered self-assembly properties)

RN 191734-06-2 HCPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



DN 128:217643  
 ED Entered STN: 25 Mar 1998  
 TI Preparation of fibrous microtubes from oligoglycine compounds  
 IN Shimizu, Toshimi; Kogiso, Masaki; Masuda, Mitsutoshi  
 PA Director General Agency of Industrial Science and Technology, Japan  
 SO Ger. Offen., 10 pp.  
 CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C-0235/74

CC 34-3 (Amino Acids, Peptides, and Proteins)  
Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE--19737245	A1	19980305	1997DE-1037245	19970827
	DE--19737245	B4	20040805		
	JP--10072721	A2	19980317	1996JP-0227974	19960829
	JP--2796613	B2	19980910		
	US---5876748	A	19990302	1997US-0916375	19970822
	US---5910565	A	19990608	1998US-0184632	19981103
	US---6030640	A	20000229	1998US-0184631	19981103
PRAI	1996JP-0227974	A	19960829		
	1997US-0916375	A3	19970822		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	DE 19737245	ICM	C07C-0235/74
		IPCI	C07C0235-74 [ICM, 6]
		ECLA	C07C235/74
	JP--10072721	IPCI	D01F0004-00 [ICM, 6]; D01F0006-00 [ICS, 6]; D06M0023-12 [ICS, 6]; A61L0027-00 [ICS, 6]; C07C0233-47 [ICS, 6]; C07K0005-00 [ICS, 6]; C07K0007-00 [ICS, 6]
	US---5876748	IPCI	C07C0233-04 [ICM, 6]
		NCL	424/450.000; 424/460.000; 424/477.000; 424/499.000; 436/071.000; 514/017.000; 514/018.000; 514/019.000
		ECLA	C07C235/74
	US---5910565	IPCI	C08G0069-10 [ICM, 6]; C08G0069-26 [ICS, 6]
		NCL	528/328.000; 424/450.000; 528/332.000
		ECLA	C07C235/74
	US---6030640	IPCI	C07C0233-04 [ICM, 7]; C08G0069-10 [ICS, 7]; C08G0069-26 [ICS, 7]
		NCL	424/450.000; 424/460.000; 424/477.000; 424/499.000; 436/071.000; 514/017.000; 514/018.000; 514/019.000
		ECLA	C08G069/10

OS MARPAT 128:217643

AB Lipids MO(COCH<sub>2</sub>NH)pCO(CH<sub>2</sub>)nCO(NHCH<sub>2</sub>CO)qOM (M = H, alkali metal; n = 6-18; p, q ≥ 1 with p + q ≤ 6) were prepared and converted into fibrous microtubes. Thus, glycylglycine benzyl ester hydrochloride was prepared and reacted with 1,10-decanedioic acid to afford N,N'-bis(glycylglycine)decane-1,10-dioic acid. The product was kept in NaOH-containing distilled water under air for two weeks to form fibrous microtubes of diameter 1-3 μM.

ST oligoglycine alkanedioic acid fibrous microtube prep

IT Crystal morphology

(preparation of oligoglycine fibrous microtubes)

IT Peptides, preparation

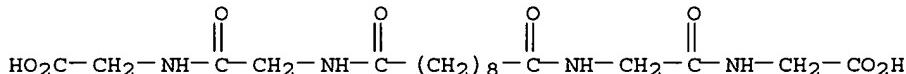
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of oligoglycine fibrous microtubes)

IT 197315-17-6P 200282-87-7P 200282-88-8P 204259-41-6P 204259-42-7P

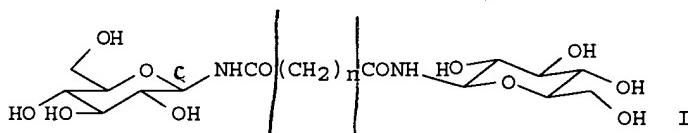
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of oligoglycine fibrous microtubes)

IT 111-20-6, Decanedioic acid, reactions 124-04-9, Hexanedioic acid, reactions 505-48-6, Octanedioic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of oligoglycine fibrous microtubes)  
IT 7797-34-4P 17293-96-8P 31972-51-7P 67585-90-4P 204259-43-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of oligoglycine fibrous microtubes)  
IT 200282-87-7P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of oligoglycine fibrous microtubes)  
RN 200282-87-7 HCAPLUS  
CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX  
NAME)



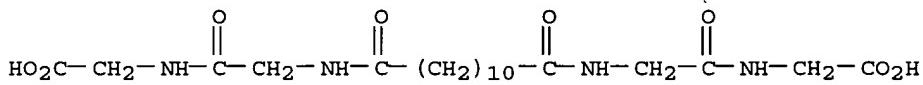
L38 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN  
AN 1998:19200 HCAPLUS  
DN 128:167677  
ED Entered STN: 15 Jan 1998  
TI Noncovalent synthesis of supramolecular polymer architectures from sugar-  
and peptide-based bolaamphiphiles  
AU Shimizu, Toshimi; Masuda, Mitsutoshi; Kogiso, Masaki;  
Asakawa, Masumi  
CS Dep. of Organic Materials, National Institute of Materials and Chemical  
Research, Tsukuba, 305, Japan  
SO Kobunshi Ronbunshu (1997), 54(12), 815-828  
CODEN: KBRBA3; ISSN: 0386-2186  
PB Kobunshi Gakkai  
DT Journal  
LA Japanese  
CC 34-3 (Amino Acids, Peptides, and Proteins)  
GI



AB Construction of fibrous polymer architectures by self-assembling of 1-glucosamide, 1-galactosamide, and oligoglycine bolaamphiphiles has been described. The 1-glucosamide bolaamphiphiles having a D-glucose residue at each end, Glc-n-Glc (I; n = 6, 9, 10, 11, 12, 13, and 14), have been synthesized by the condensation of 1-glucosylamine with a long chain  $\alpha,\omega$ -dicarboxylic acid. Similarly, the 1-galactosamide bolaamphiphiles having a D-galactose residue at each end, Gal-n-Gal (n = 10, 11, 12), have been synthesized. Self-assembled supramol. structures in water strongly depend on whether n is even or odd, which resp. give rise to fibrous assemblies or planar platelets as well as amorphous solids. This finding provides the first example of a stereochem. effect due to even-odd connecting links on the assemblies. Mol. arrangements and hydrogen-bonded networks of the 1-glucosamide and 1-galactosamide assemblies were investigated using FT-IR spectroscopy, X-ray diffraction, and crystal analyses. Some oligoglycine-based bolaamphiphiles HO(COCH2NH)mCO(CH2)nCO(NHCH2CO)mOH (n = 6, 8, 10; m = 2, 3) having an oligoglycine residue at each end have been synthesized. Sodium salts of the bolaamphiphiles also formed fibrous assemblies in water. Light microscopy for the assemblies clearly showed that closed-end tubular

structures encapsulate a large number of vesicular assemblies inside them. This is the first example of vesicle-enclosed microtubes. We also investigated the mol. arrangements and hydrogen-bonded networks within the tubes as a result of FT-IR and X-ray crystal analyses. One possible mechanism of the tube formation has been discussed.

- ST self assembled supramol polymer architecture prepn; sugar bolaamphiphile prepn; peptide bolaamphiphile prepn; glucosamide bolaamphiphile prepn; galactosamide bolaamphiphile prepn; oligoglycine bolaamphiphile prepn; vesicle enclosed microtube; closed end tubular structure encapsulate; vesicular assembly
- IT IR spectroscopy  
(Fourier-transform; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT Amphiphiles  
(bolaform; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT Liposomes
- Self-assembly
- Supramolecular structure
- X-ray diffraction
- X-ray spectroscopy  
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT Peptides, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(oligoglycines; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT Hydrogen bond  
(three-dimensional; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT 143673-93-2P 178315-05-4P 188481-28-9P 188481-29-0P 188481-30-3P  
188481-32-5P 188481-33-6P 188481-34-7P 188947-72-0P  
191734-06-2P 197315-17-6P 200282-87-7P  
200282-88-8P 200282-89-9P 200282-91-3P 200282-92-4P  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT 572-09-8, 2,3,4,6-Tetra-O-acetyl- $\alpha$ -D-glucopyranosyl bromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT 13992-25-1P, 2,3,4,6-Tetra-O-acetyl- $\beta$ -D-glucopyranosyl azide  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- IT 191734-06-2P  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)
- RN 191734-06-2 HCPLUS
- CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



L38 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:617454 HCAPLUS

DN 127:307678

ED Entered STN: 27 Sep 1997

TI Preparation of double-headed lipids which has the C terminus of a  
oligopeptide chain on the both ends

IN Shimizu, Toshimi; Ogiso, Maki; Masuda, Mitsutoshi

PA Agency of Industrial Sciences and Technology, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07K-0005/062

ICS C07K-0001/02; C07K-0001/06; C07K-0005/078; C07K-0005/083;  
C11C-0003/00; C11B-0011/00

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 75

FAN.CNT 1

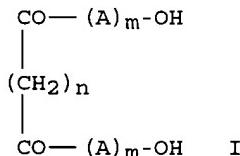
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PI	JP--09241298	A2	19970916	1996JP-0050082	19960307
	JP---2967184	B2	19991025		
	JP--11343296	A2	19991214	1999JP-0057140	19990304
	JP---3096735	B2	20001010		
PRAI	1996JP-0050082	A3	19960307		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09241298	ICM	C07K-0005/062	
	ICS	C07K-0001/02; C07K-0001/06; C07K-0005/078; C07K-0005/083; C11C-0003/00; C11B-0011/00	
	IPCI	C07K0005-062 [ICM,6]; C07K0001-02 [ICS,6]; C07K0001-06 [ICS,6]; C07K0005-078 [ICS,6]; C07K0005-083 [ICS,6]; C11C0003-00 [ICS,6]; C11B0011-00 [ICS,6]	
JP--11343296	IPCI	C07K0005-062 [ICM,6]; C07K0001-02 [ICS,6]; C07K0001-06 [ICS,6]; C07K0005-078 [ICS,6]; C07K0005-083 [ICS,6]	

OS MARPAT 127:307678

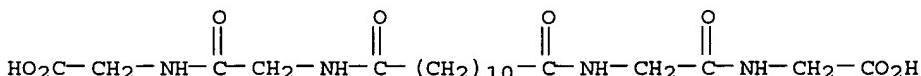
GI



AB The title compds. represented by formula (I; A = Gly, Pro, sarcosine; m≥2; n = 6-18) are prepared by condensation of H-A1-Am-OR.HCl (A, m = same as above; OR = C terminus-protecting group of an amino acid) with HO<sub>2</sub>C(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>H (n = same as above) followed by deprotection of the C terminus protecting group. They can form stable aggregates due to their high self-assembling property, e.g. organic super-thin films and closed chain vesicles when dispersed in water, thermotropic liquid crystals in the bulk state, and lyotropic liquid crystals when mixed with an appropriate solvent, and are useful as functional materials in the fields of drugs, cosmetics, electronics, information, food processing industry, agricultural and forestry industry, and textile industry (no data). Thus, a solution of

1,10-decanedicarboxylic acid and HOBT in DMF was stirred with 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride at -5° for 1 h, followed by adding H-Gly-Gly-Gly-OCH<sub>2</sub>Ph.HCl (preparation given) and Et<sub>3</sub>N in MeOH, and the resultant mixture was stirred overnight to give 94% N,N'-(glycylglycylglycine benzyl ester) decane-1,10-dicarboxamide. This was saponified with a mixture of 0.1 N aqueous NaOH and DMF at 80° for 2 h and acidified with 1 N aqueous HCl to give 92% N,N'-(glycylglycylglycine) decane-1,10-dicarboxamide.

- ST double headed lipid oligopeptide prep; self assembling lipid oligopeptide; org superthin film; closed chain vesicle; thermotropic lyotropic liq crystal
- IT Liposomes  
(closed chain; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Peptides, preparation  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(oligopeptides; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Lipids, preparation  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Films  
(superthin films; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Liquid crystals  
(thermotropic or lyotropic; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 107-97-1, Sarcosine 147-85-3, L-Proline, reactions 505-48-6, Octanedioic acid 693-23-2, 1,10-Decanedicarboxylic acid 1738-76-7, Benzyl glycinate p-toluenesulfonate 2424-92-2, 1,18-Octadecanedicarboxylic acid 13742-92-2, N-tert-Butoxycarbonylglycine dicyclohexylamine salt  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 7797-34-4P 17293-96-8P 31972-51-7P 51211-55-3P 67585-90-4P 103126-97-2P 131056-57-0P 197315-20-1P 197315-21-2P 197315-22-3P 197315-23-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 143673-93-2P 191734-06-2P 197315-13-2P 197315-14-3P 197315-15-4P 197315-16-5P 197315-17-6P 197315-18-7P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 191734-06-2P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- RN 191734-06-2 HCAPLUS
- CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)]



6

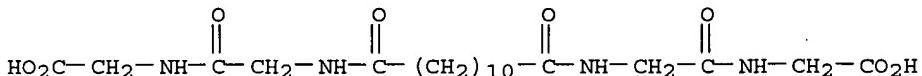
L38 ANSWER 18 OF 18 HCPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:433628 HCPLUS  
 DN 127:81776  
 ED Entered STN: 12 Jul 1997  
 TI Noncovalent Formation of Polyglycine II-Type Structure by Hexagonal Self-Assembly of Linear Polymolecular Chains  
 AU Shimizu, Toshimi; Kogiso, Masaki; Masuda, Mitsutoshi  
 CS Department of Organic Materials, National Institute of Materials and Chemical Research, Tsukuba, 305, Japan  
 SO Journal of the American Chemical Society (1997), 119(26), 6209-6210  
 CODEN: JACSAT; ISSN: 0002-7863  
 PB American Chemical Society  
 DT Journal  
 LA English  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 22, 75  
 AB Bolaamphiphile with a glycylglycine-head group at each end, N,N'-bis(carboxymethylcarbamoylmethyl)decane-1,10-dicarboxamide, has been synthesized and its crystal structure was characterized by X-ray anal. Crystal formation was critically dependent on the pH of the aqueous media. In the crystal lattice, the mols. form a linear polymol. chain stabilized by one-dimensional hydrogen bonds between the two terminal carboxylic acids. Each chain forms a pseudo-hexagonal lattice and is intermolecularly linked to its six closest neighbors. A network of the amide hydrogen bonds are oriented in three directions at 120°.  
 ST decanedicarbonylbisglycylglycine prepn crystal structure; glycylglycine decanedicarbonylbis prepn crystal structure; polyglycine II structure decanedicarbonylbisglycylglycine  
 IT Crystal structure  
 Molecular structure  
 (preparation and crystal structure of decanedicarbonylbis(glycylglycine))  
 IT 191734-06-2P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and crystal structure of decanedicarbonylbis(glycylglycine))  
 IT 556-50-3, Glycylglycine 693-23-2, 1,10-Decanedicarboxylic acid  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation and crystal structure of decanedicarbonylbis(glycylglycine))  
 RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
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- (27) Whitesides, G; Science 1991, V254, P1312 HCAPLUS  
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IT 191734-06-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and crystal structure of decanedicarbonylbis(glycylglycine))

RN 191734-06-2 HCAPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX  
 NAME)

=&gt; d all hitstr 136 tot

L36 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:717415 HCAPLUS

DN 141:366778

ED Entered STN: 02 Sep 2004

TI Synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide

AU Zhang, Zhi-Qin; Su, Xin-Mei; He, Han-Ping; Qu, Fan-Qi

CS Department of Chemistry, Wuhan University, Wuhan, 430072, Peop. Rep. China

SO Journal of Polymer Science, Part A: Polymer Chemistry (2004), 42(17), 4311-4317

CODEN: JPACEC; ISSN: 0887-624X

PB John Wiley &amp; Sons, Inc.

DT Journal

LA English

CC 37-3 (Plastics Manufacture and Processing)

AB In attempt to improve the properties of polyanhydrides based on aliphatic anhydrides, we synthesized novel polyanhydrides containing amide groups in the main chains. In this work, N,N'-bis(L-alanine)-sebacoylamide (BSAM) was prepared from natural amino acid and sebamic acid (SA) and characterized by IR and <sup>1</sup>H NMR. In addition, polymers of PBSAM, P[1,6-bis(P-carboxyphenoxy)hexane (CPH)-BSAM], and P(CPH-SA), blends of P(CPH-SA)/polylactide (PLA), P(CPH-BSAM)/PLA were also prepared and characterized by IR, gel permeation chromatog., and differential scanning calorimetry. The hydrolytic degradation of polyanhydrides and their blends with PLA (number-average mol. weight = 2.90 + 105) was evaluated in 0.1 M phosphate buffer pH 7.4 at 37 °C. The results indicate that the existence of amide, aromatic, and ester bonds in the main chain of polymers slows down the degradation rate, and the tendency becomes clearer with the increasing amount of them, and the copolymers and their blends with PLA possess excellent phys. and mech. properties. These can make them more widely used in drug delivery and nerve regeneration.

ST polyanhydride polyamide polyether blend polylactide biodegradable

IT Polyethers, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyamide-polyanhydride-; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

IT Polyanhydrides

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyamide-polyether-; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

IT Polyethers, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyanhydride-; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

- IT Polyamides, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyanhydride-polyether-; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT Polyanhydrides  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyether-; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT Biodegradable materials  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT Polymer blends  
 RL: PRP (Properties)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT Polyanhydrides  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 26776-29-4P, Sebacic acid homopolymer 26913-47-3P, Sebacic acid homopolymer, sru 106680-96-0P 121265-91-6P 778641-06-8P 778641-08-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepolymers; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 74774-53-1P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6,  
 Polylactic acid  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 56-41-7, L-Alanine, reactions 99-96-7, p-Hydroxybenzoic acid, reactions 111-19-3, Sebacoyl chloride 629-03-8, 1,6-Dibromohexane  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 778641-05-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- IT 778641-07-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)
- RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
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  - (2) Chan, C; Biomaterials 2002, V23, P2353 HCPLUS
  - (3) Deng, J; Int J Pharm 2002, V232(1-2), P1 HCPLUS
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  - (8) Jiang, S; J China Pharm University 2000, V31(5), P323 HCPLUS
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  - (10) Uhrich, K; Macromolecules 1995, V28, P2184 HCPLUS
  - (11) Ukirich, K; Macromolecules 1995, V28(7), P2184
  - (12) Wu, M; J Biomed Mater Res 1994, V28, P387 HCPLUS
- IT 778641-06-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(prepolymers; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-06-8 HCPLUS

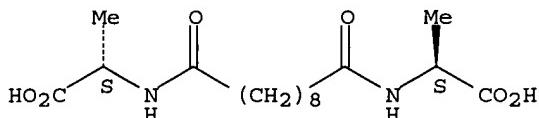
CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 778641-05-7

CMF C16 H28 N2 O6

Absolute stereochemistry.



IT 778641-05-7P

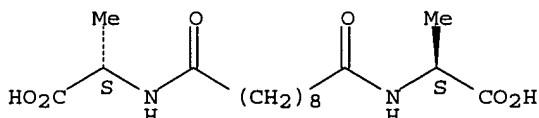
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-05-7 HCPLUS

CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 778641-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-07-9 HCPLUS

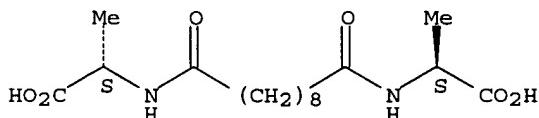
CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, polymer with 4,4'-(1,6-hexanediylibis(oxy)]bis[benzoic acid] (9CI) (CA INDEX NAME)

CM 1

CRN 778641-05-7

CMF C16 H28 N2 O6

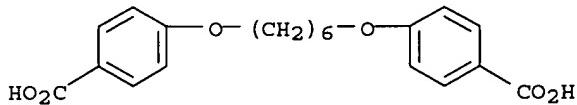
Absolute stereochemistry.



CM 2

CRN 74774-53-1

CMF C20 H22 O6



L36 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 2004:368857 HCAPLUS  
 DN 140:386000  
 ED Entered STN: 06 May 2004  
 TI Compounds, compositions and methods for modulating fat metabolism for treatment of metabolic disorders  
 IN Gaudriault, Georges; Kilinc, Ahmet; Bousquet, Olivier; Goupil-Lamy, Anne; Harosh, Itzik  
 PA Obetherapy Biotechnology, Fr.  
 SO PCT Int. Appl., 461 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K  
 CC 1-3 (Pharmacology)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2004037159	A2	20040506	2003WO-IL00860	20031023
	WO2004037159	A3	20040715		
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
		RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		

PRAI 2002US-420316P P 20021023

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004037159	ICM A61K	
	IPCI A61K [ICM, 7]	
	ECLA A61K031/00	

OS MARPAT 140:386000

AB Methods and compns. of identifying candidate compds., for modulating fat metabolism and/or inhibiting Apobec-1 activity are provided. The invention relates to compds. and pharmaceutical compns. which are useful for regulating fat metabolism and can be used for treatment of diseases and disorders selected from the group consisting of overweight, obesity, atherosclerosis, hypertension, non-insulin dependent diabetes mellitus, pancreatitis, hypercholesterolemia, hypertriglyceridemia, hyperlipidemia.

ST fat metab apolipoprotein Apobec1 inhibitor antiobestiy hypolipemic obesity

IT Apolipoproteins

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (1 (Apobec-1), B mRNA editing enzyme isoform; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Apolipoproteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (B-48; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Protein sequences

(alignment; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Antiarteriosclerotics  
   (antiatherosclerotics; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Anti-inflammatory agents  
 Anticholesteremic agents  
 Antidiabetic agents  
 Antihypertensives  
 Antiobesity agents  
 Atherosclerosis  
 Drug screening  
 Human  
 Hypercholesterolemia  
 Hypertension  
 Hypertriglyceridemia  
 Hypolipemic agents  
 Obesity  
 Pharmacophores  
 Protein sequences  
 Structure-activity relationship  
   (compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Lipids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
   (compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Chemistry  
 (computational; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Information systems  
 (data; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Lipids, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
   (hyperlipidemia; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Adipose tissue  
 (metabolism; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Diabetes mellitus  
 (non-insulin-dependent; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Inflammation  
 Pancreas, disease  
   (pancreatitis; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Information systems  
 (storage; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT 51-59-2   52-66-4   54-42-2   59-14-3   65-46-3, Cytidine   84-52-6,  
 3'-Cytidylic acid   131-55-5   147-94-4, Arabinocytosine   149-87-1  
 149-95-1   320-67-2   342-69-8   362-75-4   462-88-4   466-18-2  
 488-31-3D, Pentaric acid, stereoisomers   562-73-2D, stereoisomers  
 686-43-1   686-50-0   692-04-6   769-03-9   770-74-1   869-19-2  
 1024-99-3   1068-90-2   1078-64-4   1188-37-0   1191-22-6D, stereoisomers  
 1504-41-2   1658-27-1, 1,5-Dioxaspiro[5.5]undecane-2,4-dione   1707-77-3  
 1818-71-9   1956-30-5   1999-33-3   1999-42-4   2139-60-8   2188-09-2  
 2189-27-7   2312-73-4   2510-38-5   2782-86-7D, Heptonic acid,  
 stereoisomers   2819-56-9   2875-26-5D, stereoisomers   3001-46-5  
 3054-58-8   3081-61-6   3131-60-0   3232-65-3   3250-02-0   3258-11-5  
 3303-41-1   3322-70-1   3346-70-1   3624-34-8   3624-37-1   3721-90-2  
 3736-77-4   3750-26-3D, stereoisomers   3768-18-1   3770-74-9   3786-46-7  
 3814-79-7   3918-94-3   4365-31-5   4417-88-3   4430-28-8D, stereoisomers  
 4744-47-2   4767-03-7   4836-13-9   4887-54-1   4902-38-9   4961-03-9  
 5183-02-8   5313-55-3   5382-77-4   5395-36-8   5416-55-7   5428-96-6  
 5440-35-7   5447-62-1   5460-66-2   5578-82-5, 1,4-Dioxacyclotetradecane-

5,14-dione 5746-27-0 5948-68-5 6161-23-5 6253-54-9D, stereoisomers  
 6269-96-1 6275-97-4 6285-22-9 6318-57-6 6374-97-6 6419-70-1  
 6422-36-2 6628-11-1 6641-30-1 6641-35-6 6741-90-8 6917-36-8D,  
 Pentitol, stereoisomers 6940-61-0D, stereoisomers 6958-35-6D,  
 stereoisomers 6965-31-7D, stereoisomers 6973-89-3 6976-37-0  
 7146-67-0 7474-43-3 7481-89-2 7491-74-9 7504-90-7 7558-29-4D,  
 stereoisomers 7586-36-9D, stereoisomers 7728-81-6 10082-57-2  
 10212-20-1 10238-03-6D, stereoisomers 10486-63-2 13030-62-1  
 13253-09-3 13389-15-6 13433-02-8 13588-94-8 14001-10-6  
 14009-07-5D, stereoisomers 14276-10-9, 1,1,2,2-Cyclobutanetetramethanol  
 14505-44-3D, stereoisomers 15537-71-0 15763-12-9 15888-38-7  
 15891-49-3 15981-92-7 16424-76-3 16424-88-7 16424-88-7D,  
 stereoisomers 16485-10-2D, stereoisomers 16710-12-6, 6-Methylcytidine  
 16804-55-0 17050-70-3D, stereoisomers 17242-87-4 17902-23-7  
 19234-66-3 19706-80-0 20187-46-6 20402-36-2 21017-04-9  
 21438-60-8 21451-32-1 21559-72-8 21612-23-7 21798-35-6  
 21832-28-0 22413-28-1 22522-21-0 23141-03-9 23147-59-3D,  
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 24573-80-6 24573-81-7D, stereoisomers 25238-94-2D, stereoisomers  
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 28817-55-2 28822-73-3 29171-87-7 29768-80-7D, stereoisomers  
 29880-25-9 30635-52-0D, Heptitol, stereoisomers 30902-36-4  
 31234-47-6 31281-86-4 31796-57-3 32595-59-8 32976-04-8  
 33054-80-7 34340-37-9 35674-84-1D, Heptonamide, stereoisomers  
 35824-20-5 36396-99-3 37487-95-9 38048-32-7 38062-70-3  
 38313-48-3 40582-67-0 40615-39-2 40825-95-4D, Heptopyranose,  
 stereoisomers 41552-86-7 41552-92-5 42752-07-8D, Hexopyranose,  
 stereoisomers 43025-54-3 43179-48-2 45007-61-2D, Hexitol,  
 stereoisomers 46795-89-5D, stereoisomers 50408-20-3 51424-07-8D,  
 stereoisomers 51529-39-6 51926-51-3 52096-38-5D, stereoisomers  
 52338-88-2 52393-78-9D, stereoisomers 52899-07-7 52899-09-9  
 53106-52-8D, Pentose, stereoisomers 54982-83-1, 1,4-Dioxacyclohexadecane-  
 5,16-dione 55478-49-4 57100-18-2, Pseudoisocytidine 57204-06-5  
 57713-49-2 57840-71-8 58093-05-3, 6,10-Dioxaspido[4.5]decane-7,9-dione  
 61671-83-8 61858-03-5 62137-32-0D, stereoisomers 62885-64-7  
 64624-52-8 64949-81-1 65456-86-2 66857-14-5 67219-55-0  
 67540-21-0 67644-00-2 68857-67-0 69164-79-0 69227-93-6  
 69407-80-3 69779-92-6 69791-26-0 69984-73-2 70354-63-1  
 71540-13-1 71698-68-5 71927-65-6D, Heptose, stereoisomers 73502-37-1  
 73716-22-0 75145-86-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (compds., compns. and methods for modulating fat metabolism for treatment  
 of metabolic disorders)

IT	76054-81-4	76512-82-8	77517-00-1	77642-81-0	79465-26-2D,
	2-Heptulose, stereoisomers		84211-42-7	84472-90-2	85227-98-1
	86625-99-2	87515-42-2	88156-01-8D, stereoisomers		88273-32-9
	89265-67-8	89814-70-0	89852-17-5	90191-92-7D, stereoisomers	
	91086-48-5	91346-99-5	91400-85-0	91646-60-5D, stereoisomers	
	92790-50-6	93032-76-9	93144-30-0	94536-61-5	94597-35-0
	96647-89-1D, stereoisomers		96699-64-8	97466-79-0D, stereoisomers	
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	104375-88-4	105172-44-9	105172-45-0	107180-53-0	109477-56-7
	109731-73-9D, stereoisomers		109813-64-1	109835-90-7	111556-43-5
	114522-16-6	114612-67-8	118517-39-8	118517-52-5	119824-65-6
	120885-60-1	126543-45-1	126832-37-9	128366-13-2	129198-82-9
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	134515-27-8	135701-66-5	135701-70-1	135701-73-4	138284-91-0
	139686-85-4D, 2-Hexulose, stereoisomers		142183-69-5		143673-88-5
	143673-89-6	154934-95-9	154934-97-1	155969-61-2	158411-82-6
	158728-68-8	159788-79-1	161374-07-8	161720-97-4	165824-59-9
	167083-19-4	173725-28-5	175136-49-9	184290-21-9	187393-21-1
	187393-27-7	189569-10-6	202002-13-9	205520-32-7	210099-28-8
	215435-60-2	247109-17-7	253170-13-7	253328-56-2	253328-65-3
	253344-73-9	256955-39-2	256955-42-7	258264-17-4	258264-18-5

258264-26-5	262849-69-4	283170-56-9	283593-06-6	290313-24-5
292644-27-0D,	stereoisomers	294861-85-1	299439-70-6	300376-32-3
300377-09-7	300590-64-1	300829-33-8	301164-92-1	301173-47-7
301193-30-6	301524-39-0	302325-97-9	302326-01-8	302557-90-0
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309923-62-4	312609-13-5	312699-16-4	312699-17-5	313067-44-6
313378-67-5	314034-42-9	314767-53-8	316148-78-4	316381-87-0
316382-03-3	324001-42-5	325822-94-4	326008-25-7	326905-28-6
329227-75-0	330197-66-5	331983-89-2	332851-61-3	332851-93-1
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332907-92-3	333324-50-8	333436-99-0	333437-12-0	333747-18-5
334506-75-1	334668-81-4	337533-57-0D,	stereoisomers	337533-58-1D,
stereoisomers	338987-56-7	341006-63-1	343820-65-5	347347-33-5
349401-56-5	351336-05-5	351344-20-2	351344-34-8	351438-11-4
352226-25-6	352429-36-8D,	stereoisomers	352548-32-4	352553-74-3
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354121-79-2	354795-19-0	355134-58-6	357387-57-6	364375-68-8
371200-46-3	371235-04-0	371938-63-5	374106-34-0	374601-95-3
374701-36-7	374768-01-1	374768-03-3	376384-65-5	376602-44-7
378777-06-1	380587-51-9	381200-52-8	381693-06-7	383403-98-3
385378-98-3	393784-53-7	393784-54-8	393820-13-8	393822-08-7
393822-71-4	393822-74-7	393823-03-5	400879-41-6	411237-23-5
432547-82-5	433249-08-2	433308-90-8	433310-31-7	439141-08-9
439142-15-1	442555-00-2	448189-47-7	452921-91-4	473267-50-4
487022-71-9	488087-82-7	488109-76-8	488132-66-7	489442-93-5
497222-35-2	497252-30-9	497925-23-2	498531-29-6	498563-11-4
500105-12-4	500160-44-1	500160-45-2	500160-47-4	500160-55-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT	500191-32-2	500278-24-0	501370-44-1	510761-16-7	510761-18-9
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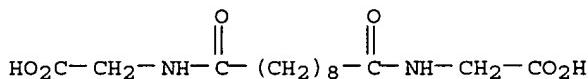
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 686301-02-0 686301-03-1 686301-04-2 686301-05-3 686301-07-5  
 686301-11-1 686301-13-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (compds., compns. and methods for modulating fat metabolism for treatment  
 of metabolic disorders)

IT	686301-14-4	686301-15-5	686301-16-6	686301-17-7	686301-18-8
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	686301-24-6	686301-25-7	686301-26-8	686301-27-9	686301-28-0
	686301-29-1	686301-30-4	686301-31-5	686301-32-6	686301-33-7
	686301-34-8	686301-35-9	686301-36-0	686301-37-1	686301-38-2
	686301-39-3	686301-40-6	686301-41-7	686301-42-8	686301-43-9
	686301-44-0	686301-45-1	686301-46-2	686301-47-3	686301-48-4
	686301-49-5	686301-50-8	686301-51-9	686301-52-0	686301-53-1
	686301-54-2	686301-55-3	686301-56-4	686301-58-6	686301-59-7
	686301-60-0	686301-61-1	686301-62-2	686301-63-3	686301-64-4
	686301-65-5	686301-66-6	686301-67-7	686301-68-8	686301-69-9
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 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (compds., compns. and methods for modulating fat metabolism for treatment  
 of metabolic disorders)

IT 109477-56-7  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (compds., compns. and methods for modulating fat metabolism for treatment  
 of metabolic disorders)  
 RN 109477-56-7 HCAPLUS  
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:382567 HCAPLUS  
 DN 133:267112  
 ED Entered STN: 09 Jun 2000  
 TI Odd-even effects in supramolecular assemblies of diamide bolaamphiphiles  
 AU Schneider, Johannes; Messerschmidt, Christian; Schulz, Andrea; Gnade,  
 Michael; Schade, Boris; Luger, Peter; Bombicz, Petra; Hubert, Vera;  
 Fuhrhop, Juergen-Hinrich  
 CS FB Biologie Chemie Pharmazie Institut fuer Chemie/Organische Chemie, Freie  
 Universitaet Berlin, Berlin, D-14195, Germany  
 SO Langmuir (2000), 16(23), 8575-8584  
 CODEN: LANGD5; ISSN: 0743-7463  
 PB American Chemical Society  
 DT Journal  
 LA English  
 CC 34-2 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 22, 75  
 AB Bolaamphiphiles ("bolas"), containing two secondary amide groups at the ends  
 of an oligomethylene chain and two amino acid type headgroups, were  
 synthesized. The structures of crystals, of noncovalent fibers, and of  
 surface monolayers on gold strongly depended on odd-even effects. In the  
 crystal structures of alanine-alanine dipeptides with C11- and  
 C12- $\alpha$ , $\omega$ -amino acid linkers, helical (even number of methylene  
 groups in the chain) or sheetlike (odd) arrangements of the headgroups  
 were found. Bolas containing two different amino acid end groups, namely, D-  
 or L-alanine and L-lysine, connected by the same C11- and C12 linkers did  
 not crystallize. Only the even-numbered bolas gave fibers. L- And  
 D-configurations of alanine headgroups affected the curvature of the  
 fibers. Diamido bolas with terminal SH-groups self-assembled on gold.  
 Only those with even-numbered chains gave rigid monolayers. Simple  
 stereochem. arguments concerning the fitting of amide hydrogen bond chains  
 on both ends of the bolas are given to explain the observed differences in  
 crystals, fibers, and monolayers.  
 ST bolaamphiphile diamide prepn crystal structure supramol assembly  
 IT Amphiphiles  
 (bolaform; odd-even effects in supramol. assemblies of synthetic  
 diamide bolaamphiphiles containing alanines and/or lysines)  
 IT Molecular association  
 (fibers; odd-even effects in supramol. assemblies of synthetic diamide  
 bolaamphiphiles containing alanines and/or lysines)  
 IT Crystal structure  
 Helix (conformation)  
 Self-assembly

(odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT Amino acids, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 253195-53-8P 289056-65-1P 289056-66-2P 289056-67-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles)

IT 289056-73-1 289056-74-2  
 RL: PRP (Properties)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 289056-58-2P 289056-59-3P 289056-60-6P  
 289056-61-7P 289056-62-8P 289056-63-9P 289056-64-0P  
 289056-68-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 821-38-5, Tetradeceanedioic acid 13288-57-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 100286-82-6P 105579-84-8P 289056-69-5P 289056-70-8P 289056-71-9P  
 289056-72-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

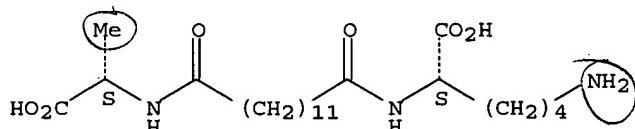
- (1) Angel, D; J Electrochem Soc 1972, V35, P55
- (2) Bain, C; J Am Chem Soc 1989, V111, P321 HCPLUS
- (3) Boettcher, C; Ultramicroscopy 1996, V62, P133 HCPLUS
- (4) Butt, H; Langmuir 1995, V11, P4735 HCPLUS
- (5) Chidsey, C; Langmuir 1990, V6, P682 HCPLUS
- (6) Clegg, R; Langmuir 1996, V12, P5239 HCPLUS
- (7) Conway, B; J Electrochem Soc 1978, V125, P257 HCPLUS
- (8) Doudevski, I; Phys Rev Lett 1998, V81, P4927 HCPLUS
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- (10) Koning, J; J Am Chem Soc 1993, V115, P693
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- (12) Poirier, G; Chem Rev 1997, V97, P1117 HCPLUS
- (13) Porter, M; J Am Chem Soc 1987, V109, P3559 HCPLUS
- (14) Tam-Chang, S; Langmuir 1995, V11, P4371 HCPLUS
- (15) Tuzov, I; New J Chem 1996, V20, P23 HCPLUS
- (16) Tuzov, I; New J Chem 1996, V20, P37 HCPLUS

IT 289056-59-3P 289056-60-6P 289056-61-7P  
 289056-62-8P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

RN 289056-59-3 HCPLUS

CN L-Lysine, N2-[13-[(1S)-1-carboxyethyl]amino]-1,13-dioxotridecyl] - (9CI)  
 (CA INDEX NAME)

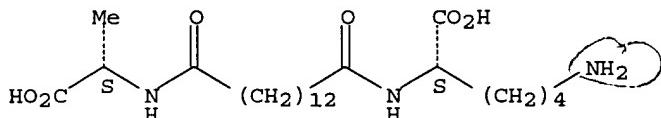
Absolute stereochemistry.



RN 289056-60-6 HCPLUS

CN L-Lysine, N2-[14-[(1S)-1-carboxyethyl]amino]-1,14-dioxotetradecyl - (9CI)  
(CA INDEX NAME)

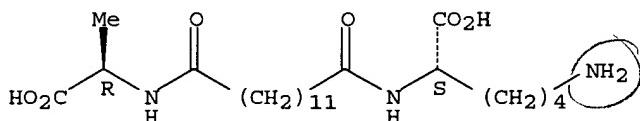
Absolute stereochemistry.



RN 289056-61-7 HCPLUS

CN L-Lysine, N2-[13-[(1R)-1-carboxyethyl]amino]-1,13-dioxotridecyl - (9CI)  
(CA INDEX NAME)

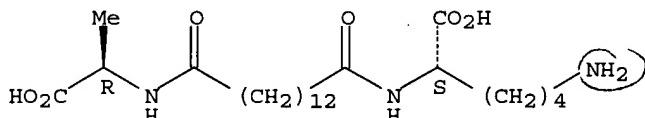
Absolute stereochemistry.



RN 289056-62-8 HCPLUS

CN L-Lysine, N2-[14-[(1R)-1-carboxyethyl]amino]-1,14-dioxotetradecyl - (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



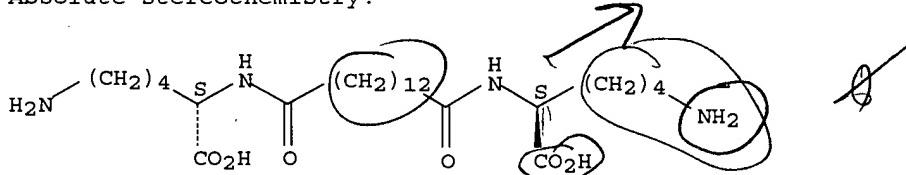
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(odd-even effects in supramol. assemblies of synthetic diamide  
bolaamphiphiles containing alanines and/or lysines)

RN 289056-72-0 HCPLUS

CN L-Lysine, N2,N2'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



L36 ANSWER 4 OF 12 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1999:370092 HCPLUS

DN 131:44587

ED Entered STN: 15 Jun 1999

TI Dicarboxylic acids for thermally reversible recording material

IN Hotta, Yoshihiko; Morohoshi, Kunichika; Sugiyama, Katsuyuki; Kokubo,  
Katsuaki; Kawai, Koji; Hosoda, Kazuo; Moriya, Masafumi

PA Ricoh Co., Ltd., Japan; Miyoshi Oil and Fat Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07C-0233/47

ICS B41M-0005/36; C09K-0009/02

CC 23-16 (Aliphatic Compounds)

Section cross-reference(s): 74

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP-11152256	A2	19990608	1998JP-0259182	19980831
PRAI 1997JP-0254056	A	19970904		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11152256	ICM	C07C-0233/47
	ICS	B41M-0005/36; C09K-0009/02
	IPCI	C07C0233-47 [ICM,6]; B41M0005-36 [ICS,6]; C09K0009-02 [ICS,6]

AB Title dicarboxylic acids have general structure HO<sub>2</sub>C(CH<sub>2</sub>)<sub>n</sub>NHCO(CH<sub>2</sub>)<sub>m</sub>CONH(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>H (11≥n≥1, 18≥m≥4) and are synthesized for use in thermally reversible recording material.

ST dicarboxylic acid thermally reversible recording material

IT Carboxylic acids, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(dicarboxylic; preparation of dicarboxylic acids for thermally reversible recording material)

IT Recording materials

(preparation of dicarboxylic acids for thermally reversible recording material)

IT 25580-91-OP 25611-85-2P 102817-75-4P 125120-74-3P 219852-90-1P  
219852-91-2P 227204-04-8P 227204-05-9P 227204-06-0P  
227204-07-1P 227204-08-2P 227204-09-3P 227204-10-6P 227204-11-7P  
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227204-17-3P 227204-18-4P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(preparation of dicarboxylic acids for thermally reversible recording material)

IT 56-12-2, 4-Aminobutyric acid, reactions 56-40-6, Glycine, reactions 60-32-2, 6-Aminocaproic acid 107-95-9, β-Alanine 110-60-1, 1,4-Butanediamine 111-19-3, Sebacic acid dichloride 111-50-2, Adipic acid dichloride 124-09-4, 1,6-Hexanediamine, reactions 373-44-4, 1,8-Diaminoctane 541-48-0, 3-Aminobutyric acid 543-20-4, Succinic acid dichloride 626-86-8, Adipic acid monoethyl ester 628-47-7, 5-Aminocaproic acid 646-25-3, 1,10-Diaminodecane 693-57-2, 12-Aminolauric acid 821-38-5, Tetradecanedioic acid 1070-34-4, Succinic acid monoethyl ester 1071-71-2 2104-19-0, Azelaic acid monomethyl ester 2783-17-7, 1,12-Diaminododecane 4082-57-9 4244-84-2 4834-98-4, Dodecanedioic acid dichloride 6937-16-2 10027-07-3, Suberic acid dichloride 21646-49-1, Tetradecanediyl dichloride 33018-91-6, Pimelic acid monoethyl ester 84636-23-7 101702-50-5, Eicosanedicarbonyl dichloride 102014-64-2 227204-03-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of dicarboxylic acids for thermally reversible recording material)

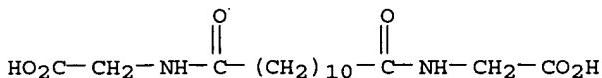
IT 227204-04-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(preparation of dicarboxylic acids for thermally reversible recording material)

RN 227204-04-8 HCPLUS

CN Glycine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:205018 HCAPLUS  
 DN 131:75264  
 ED Entered STN: 01 Apr 1999  
 TI Synthesis and aggregation of two-headed surfactants bearing amino acid moieties  
 AU Franceschi, Sophie; de Viguerie, Nancy; Riviere, Monique; Lattes, Armand  
 CS Laboratoire des Interactions Moleculaires et Reactivite Chimique et Photochimique (IMRCP) (CNRS UMR 5623), Universite Paul Sabatier, Toulouse, Fr.  
 SO New Journal of Chemistry (1999), 23(4), 447-452  
 CODEN: NJCHE5; ISSN: 1144-0546  
 PB Royal Society of Chemistry  
 DT Journal  
 LA English  
 CC 46-3 (Surface Active Agents and Detergents)  
 AB The synthesis of bolaamphiphiles with two amino acid heads having the general structure AA-X-AA, where AA denotes a N-terminal amino acid (D- or L-alanine or L-histidine) and X is OC(CH<sub>2</sub>)<sub>2</sub>CO (n = 10, 12, 20), is described. Micellization was observed for the bolaamphiphiles with n = 20. For compds. with shorter chain lengths, light scattering and electron microscopy suggest the formation of vesicles or fibrous aggregates. These bolaamphiphiles can also form gels at higher concns. in water or ethanol. Fibrous structures were observed in these gels by electron microscopy. S  
 ST amino acid diamide prepn surfactant  
 IT Gels  
     (from bis(amino acid) amide derivative surfactants)  
 IT Micelles  
     (in aggregation of bis(amino acid) amide derivative surfactants)  
 IT Surfactants  
     (nonionic; preparation and aggregation of bis(amino acid) amide derivative surfactants)  
 IT Amino acids, reactions  
     RL: RCT (Reactant); RACT (Reactant or reagent)  
     (preparation and aggregation of bis(amino acid) amide derivative surfactants)  
 IT 228582-15-8P 228582-16-9P 228582-17-0P  
 228582-18-1P 228582-19-2P 228582-20-5P  
 228582-21-6P 228582-22-7P 228582-23-8P  
     RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
     (preparation and aggregation of bis(amino acid) amide derivative surfactants)  
 IT 505-56-6, Docosanedioic acid 693-23-2, 1,10-Decanedicarboxylic acid  
 821-38-5, 1,12-Dodecanedicarboxylic acid 1499-46-3, L-Histidine methyl ester  
 4834-98-4, Dodecanedioyl dichloride 10065-72-2, L-Alanine methyl ester  
 16250-48-9, Docosanedioyl dichloride 21646-49-1,  
 Tetradecanedioyl dichloride 21705-13-5, D-Alanine methyl ester  
     RL: RCT (Reactant); RACT (Reactant or reagent)  
     (starting material; preparation and aggregation of bis(amino acid) amide derivative surfactants)  
 RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
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 (2) Brisset, F; New J Chem 1996, V20, P595 HCAPLUS  
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 (5) Franceschi, S; to be published in J Dispersion Sci Technol  
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 (7) Fuhrhop, J; Adv Supramol Chem 1992, V2, P25 HCAPLUS

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 (39) Tanford, C; J Phys Chem 1972, V76, P3020 HCAPLUS  
 (40) Tsubone, T; J Med Sci 1962, V13, P93 HCAPLUS  
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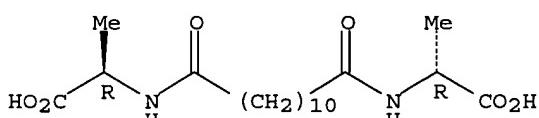
IT 228582-15-8P 228582-16-9P 228582-17-0P  
 228582-18-1P 228582-19-2P 228582-20-5P  
 228582-21-6P 228582-22-7P 228582-23-8P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (preparation and aggregation of bis(amino acid) amide derivative surfactants)

RN 228582-15-8 HCAPLUS

CN D-Alanine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

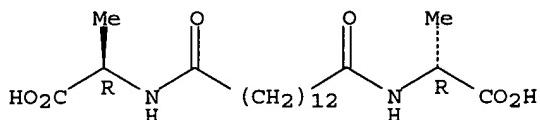
Absolute stereochemistry.



RN 228582-16-9 HCAPLUS

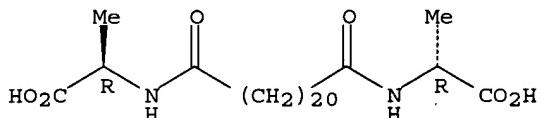
CN D-Alanine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



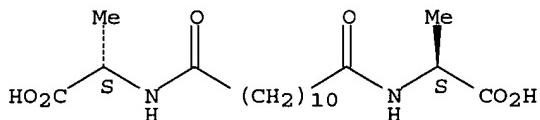
RN 228582-17-0 HCPLUS  
 CN D-Alanine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



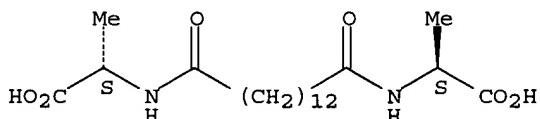
RN 228582-18-1 HCPLUS  
 CN L-Alanine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



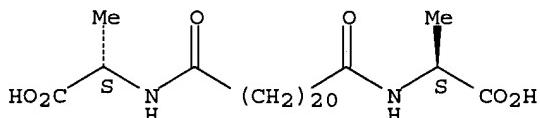
RN 228582-19-2 HCPLUS  
 CN L-Alanine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



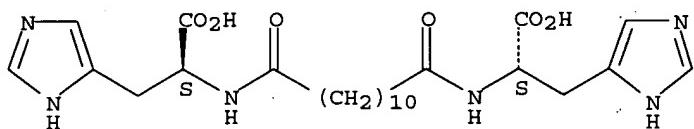
RN 228582-20-5 HCPLUS  
 CN L-Alanine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



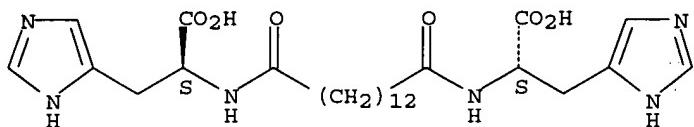
RN 228582-21-6 HCPLUS  
 CN L-Histidine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



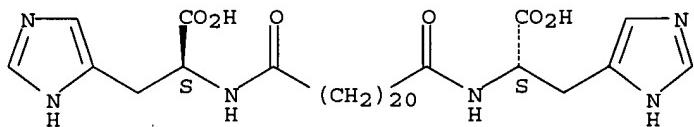
RN 228582-22-7 HCPLUS  
 CN L-Histidine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



RN 228582-23-8 HCPLUS  
 CN L-Histidine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



L36 ANSWER 6 OF 12 HCPLUS COPYRIGHT 2006 ACS on STN

AN 1995:922052 HCPLUS

DN 123:319509

ED Entered STN: 16 Nov 1995

TI Compositions for corrosion prevention and anti-scaling for water-cooling system of internal combustion engines

IN Li Yuanlin; Qiu Kaiming

PA Yuhfu Sulfur-Iron Ore Enterprise Group Corp., Peop. Rep. China

SO Faming Zhanli Shengqing Gongkai Shuomingshu, 7 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM C09K-0003/00

ICS C02F-0005/12

CC 55-6 (Ferrous Metals and Alloys)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN---1092795	A	19940928	1993CN-0103720	19930327
CN---1034738	B	19970430		
PRAI 1993CN-0103720		19930327		

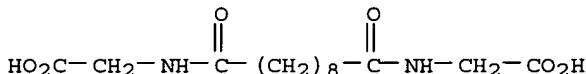
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CN 1092795	ICM C09K-0003/00 ICS C02F-0005/12 IPCI C09K0003-00 [ICM,5]; C02F0005-12 [ICS,5] ECLA C23F011/08	

AB The title compns. contain Na N,N-sebacyl di(Me glycinate) 3-6, decanol-ethylene oxide-propylene oxide copolymer 0.5-1, itaconic acid-acrylic acid copolymer 0.2-0.3, benzotriazole 0.2-0.5,

*No patent*

ST triethanolamine 22-25, Na molybdate 2-4, and water 60-69 weight%  
 engine coolant additive corrosion prevention  
 IT 95-14-7, 1H-Benzotriazole 102-71-6, Triethanolamine, uses 7631-95-0,  
 Sodium molybdate 25948-33-8, Acrylic acid-itaconic acid copolymer  
 37251-67-5, Ethylene oxide-propylene oxide copolymer monodecyl ether  
 170370-13-5  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (composition; compns. for corrosion prevention and anti-scaling for  
 water-cooling system of internal combustion engines)  
 IT 170370-13-5  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (composition; compns. for corrosion prevention and anti-scaling for  
 water-cooling system of internal combustion engines)  
 RN 170370-13-5 HCAPLUS  
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, disodium salt (9CI) (CA  
 INDEX NAME)



● 2 Na

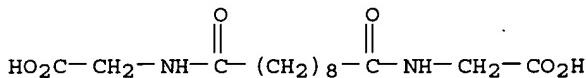
L36 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1994:69611 HCAPLUS  
 DN 120:69611  
 ED Entered STN: 19 Feb 1994  
 TI Lipophilic derivatives of natural amino acids as antibesity drugs  
 IN Shinitzky, Meir  
 PA Seinyorina Ltd., Israel; Cohn, Michael  
 SO PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K-0031/225  
 ICS A61K-0031/195; C07C-0233/47; C07C-0237/22  
 CC 1-10 (Pharmacology)  
 Section cross-reference(s): 34

✓ for salts  
 ✓  
 ✓  
 Teacher d's 1-3

FAN.CNT 1	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO---9321913	A1	19931111	1993WO-EP01014	19930427	
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
IL---101708	A1	19960804	1992IL-0101708	19920428	
AU---9340626	A1	19931129	1993AU-0040626	19930427	
EP---637958	A1	19950215	1993EP-0909847	19930427	
EP---637958	B1	19970402			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP---07508719	T2	19950928	1993JP-0518907	19930427	
JP---3666667	B2	20050629			
AT---150967	E	19970415	1993AT-0909847	19930427	
CA---2134560	C	20020319	1993CA-2134560	19930427	
US---5602164	A	19970211	1996US-0616948	19960318	
PRAI 1992IL-0101708	A	19920428			
1993WO-EP01014	A	19930427			
1994US-0325422	B2	19941219			

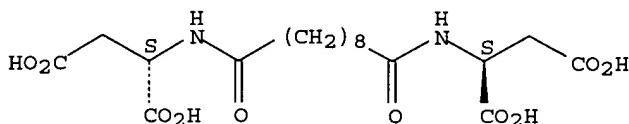
1995US-0524961		A1	19950908
CLASS	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9321913		ICM	A61K-0031/225
		ICS	A61K-0031/195; C07C-0233/47; C07C-0237/22
		IPCI	A61K0031-225 [ICM,5]; A61K0031-195 [ICS,5]; C07C0233-47 [ICS,5]; C07C0237-22 [ICS,5]
IL----101708		IPCI	A61K0031-16 [ICM,6]; C07C0235-12 [ICS,6]
AU---9340626		IPCI	A61K0031-225 [ICM,5]; C07C0237-22 [ICS,5]; A61K0031-195 [ICS,5]; C07C0233-47 [ICS,5]
EP----637958		IPCI	A61K0031-225 [ICM,6]; A61K0031-195 [ICS,6]; C07C0233-47 [ICS,6]; C07C0237-22 [ICS,6]
JP--07508719		IPCI	C07C0237-22 [ICM,6]; A61K0031-195 [ICS,6]; A61K0031-215 [ICS,6]; C07C0233-47 [ICS,6]
		ECLA	A61K031/195; A61K031/215
AT----150967		IPCI	A61K0031-225 [ICM,6]; A61K0031-195 [ICS,6]; C07C0233-47 [ICS,6]; C07C0237-22 [ICS,6]
CA---2134560		IPCI	A61K0031-225 [ICM,5]; A61K0031-195 [ICS,5]; A23L0001-29 [ICS,5]
<u>US---5602164</u>		IPCI	A61K0031-415 [ICM,6]; A61K0031-40 [ICS,6]; A61K0031-235 [ICS,6]; A61K0031-24 [ICS,6]
		NCL	514/400.000; 514/419.000; 514/423.000; 514/532.000; 514/538.000; 514/547.000; 514/549.000; 514/550.000; 514/551.000; 514/556.000; 514/617.000; 514/619.000; 514/621.000; 514/626.000; 514/627.000; 514/909.000
		ECLA	A61K031/195; A61K031/215
OS	MARPAT 120:69611		
AB	Obesity is treated by the administration of a lipophilic derivs. of natural amino acids R4(CH <sub>2</sub> ) <sub>n</sub> CONR1CHR2COR3 [R1 = H, CH <sub>3</sub> ; R2 = a side chain of a naturally occurring amino acid; R3 = OH, OCH <sub>2</sub> CH <sub>3</sub> , NH <sub>2</sub> ; n = 6-18; R4 = CH <sub>3</sub> , R <sub>3</sub> COOCHR <sub>2</sub> NR <sub>1</sub> CO- (R <sub>1</sub> , R <sub>2</sub> , R <sub>3</sub> = same as above)]. Hydroxy succinimide ester of palmitic acid in THF was mixed with sarcosine in aqueous Na <sub>2</sub> CO <sub>3</sub> solution at 40° for 24 hs followed by evaporation of THF and acidification to obtain N-palmitoyl sarcosine (I). The antiobesity of 0.1% I in mice diet was shown.		
ST	lipophilic amino acid deriv antiobesity; palmitoyl sarcosine antiobesity drug		
IT	Antiobesity agents (lipophilic derivs. of natural amino acids, preparation of)		
IT	Amino acids, compounds		
	RL: BIOL (Biological study) (compds., lipophilic, antiobesity agents)		
IT	2421-33-2P 109477-56-7P 152271-13-1P 152271-14-2P 152510-19-5P 152510-20-8P 152510-21-9P 152510-58-2P		
	RL: SPN (Synthetic preparation); PREP (Preparation) (antiobesity drug, preparation of)		
IT	23024-29-5P		
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reaction of, with glycine)		
IT	111-20-6, Decanedioic acid, biological studies		
	RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with hydroxysuccinimide)		
IT	107-97-1, Sarcosine		
	RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with palmitic acid hydroxy succinimide ester)		
IT	14464-31-4		
	RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with sarcosine)		
IT	6066-82-6		
	RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with sebacic acid)		
IT	56-40-6, Glycine, biological studies 70-47-3, L-Asparagine, reactions		
	RL: RCT (Reactant); RACT (Reactant or reagent)		

(reaction of, with sebacoyl hydroxy succinimide)  
IT 109477-56-7P 152510-19-5P 152510-20-8P  
152510-21-9P 152510-58-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(antibesity drug, preparation of)  
RN 109477-56-7 HCPLUS  
CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



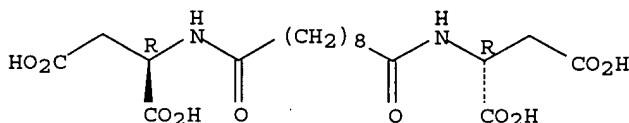
RN 152510-19-5 HCPLUS  
CN L-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



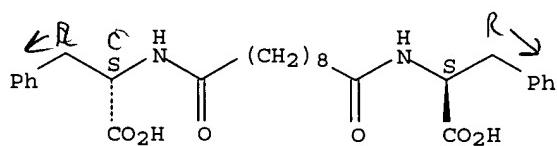
RN 152510-20-8 HCPLUS  
CN D-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

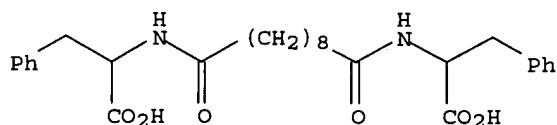


RN 152510-21-9 HCPLUS  
CN L-Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

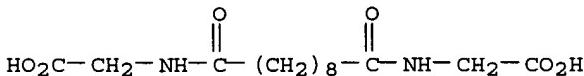
Absolute stereochemistry.



RN 152510-58-2 HCPLUS  
CN Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

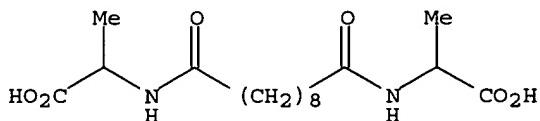


L36 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:572062 HCAPLUS  
 DN 117:172062  
 ED Entered STN: 01 Nov 1992  
 TI Synthesis and antistaphylococcal activity of dicarboxylic acid derivatives containing an amino acid fragment  
 AU Grigoryan, N. A.; Mndzhoyan, Z. O.; Kazaryan, E. V.; Ter-Zakharyan, Yu. Z.; Mndzhoyan, O. L.  
 CS Inst. Tonkoi Org. Khim. im. Mndzhoyana, Yerevan, Armenia  
 SO Khimiko-Farmatsevticheskii Zhurnal (1992), 26(2), 43-5  
 CODEN: KHFZAN; ISSN: 0023-1134  
 DT Journal  
 LA Russian  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 10  
 AB Title compds. RCO(CH<sub>2</sub>)<sub>n</sub>COR (R = Gly, Gly-OEt, n = 2-8; R = DL- $\alpha$ -Ala, Tyr, n = 2,6; R = GlyGly, n = 2,5,6) were prepared by acylation of the amino acid. The compds. were screened for antibacterial activity and toxicity. *(Signature)*  
 ST alkanedicarboxylic amino acid deriv prep antibacterial; glycine alkanedicarboxylic deriv prep antibacterial; alanine alkanecarboxylic deriv prep antibacterial; tyrosine alkanedicarboxylic deriv prep antibacterial  
 IT Bactericides, Disinfectants, and Antiseptics  
 (amino acid dicarboxylic acid derivs.)  
 IT Molecular structure-biological activity relationship  
 (bactericidal, amino acid dicarboxylic acid derivs.)  
 IT 111-19-3, Decanedioyl dichloride 111-50-2, Hexanedioyl dichloride  
 123-98-8, Nonanedioyl dichloride 142-79-0, Heptanedioyl dichloride  
 543-20-4, Butanedioyl dichloride 2873-74-7, Pentanedioyl dichloride  
 10027-07-3, Octanedioyl dichloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with amino acids)  
 IT 56-40-6, Glycine, reactions 60-18-4, L-Tyrosine, reactions 302-72-7,  
 DL- $\alpha$ -Alanine 556-50-3, Glycylglycine 623-33-6, Glycine ethyl ester hydrochloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with dicarboxylic anhydrides)  
 IT 36724-51-3P 91638-57-2P 91717-13-4P 92377-71-4P 92790-50-6P  
 93144-30-0P 93262-15-8P 102817-61-8P 105172-43-8P 105172-44-9P  
 105172-45-0P 109477-56-7P 135245-11-3P 143673-88-5P  
 143673-89-6P 143673-90-9P 143673-91-0P 143680-74-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and antibacterial activity of)  
 IT 97073-86-4P 143673-92-1P 143673-93-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 109477-56-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and antibacterial activity of)  
 RN 109477-56-7 HCAPLUS  
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

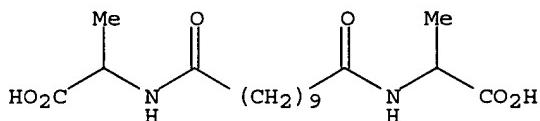


L36 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1965:472384 HCAPLUS  
 DN 63:72384

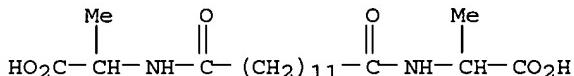
OREF 63:13395b-c  
 ED Entered STN: 22 Apr 2001  
 TI Photochemistry of aromatic amino acids in boric acid  
 AU Santus, Rene; Guermonprez, Regis; Ptak, Marius  
 CS Museum Natl. Hist. Nat., Paris  
 SO Compt. Rend. (1965), 261(1(Groupe 7)), 117-20  
 DT Journal  
 LA French  
 CC 44 (Amino Acids, Peptides, and Proteins)  
 AB Irradiation of phenylalanine, tyrosine, and tryptophan in H<sub>3</sub>BO<sub>3</sub> glass at 77°K. gave rise to absorption bands in the visible region of the spectrum, and decreased the intensity of phosphorescence after uv excitation. These changes are completely reversible on heating to 393°K. An E.P.R. signal attributable to H atoms appears on irradiation at 77°K., but disappears on warming to 100°K. An unidentified E.P.R. signal ( $g = 2.0036$ ) persists up to 393°K. *(Signature)*  
 IT Amino acids  
     (irradiation of, in presence of H<sub>3</sub>BO<sub>3</sub>)  
 IT Spectra, visible and ultraviolet  
     (of amino acids (irradiated) in presence of H<sub>3</sub>BO<sub>3</sub>)  
 IT Phosphorescence  
     (of tryptophan and tyrosine)  
 IT Magnetic resonance absorption  
     (of tyrosine (irradiated))  
 IT Radiation and Radiation effects  
     (on amino acids, in presence of H<sub>3</sub>BO<sub>3</sub>)  
 IT 10043-35-3, Boric acid  
     (amino acid irradiation in presence of)  
 IT 60-18-4, Tyrosine 63-91-2, Alanine, phenyl- 73-22-3, Tryptophan  
     (irradiation of, in presence of H<sub>3</sub>BO<sub>3</sub>)  
 L36 ANSWER 10 OF 12 HCPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1965:472383 HCPLUS  
 DN 63:72383  
 OREF 63:13395a-b  
 ED Entered STN: 22 Apr 2001  
 TI Reaction between higher dicarboxylic acids and DL-alanine  
 AU Augustin, M.  
 CS Martin-Luther-Univ., Halle-Wittenberg, Germany  
 SO Zeitschrift fuer Chemie (1965), 5(8), 300-1  
 CODEN: ZECEAL; ISSN: 0044-2402  
 DT Journal  
 LA German  
 CC 44 (Amino Acids, Peptides, and Proteins)  
 OS CASREACT 63:72383  
 AB Mixed anhydrides prepared from higher dicarboxylic acids, ClCO<sub>2</sub>Et, and Et<sub>3</sub>N in tetrahydrofuran with DL-alanine gave 60-70% HO<sub>2</sub>CCHMeNHCO(CH<sub>2</sub>)<sub>n</sub>-CONHCHMeCO<sub>2</sub>H (n and m.p. listed); 8, 191-2°; 9, 175-6°, 10, 182-4°; 11, 140-4°.  
 IT Acids  
     (catalysts in polymerization, reactions of dicarboxylic, with DL-alanine)  
 IT Alanine, N-[N-[N-(N-docosanoyl-3-phenylalanyl)-isoleucyl]isoleucyl]-3-phenylalanyl-, N,N'-dodecanedioyldi-  
 IT 3309-42-0, Alanine, N,N'-sebacyoyldi- 3309-43-1, Alanine, N,N'-undecanedioyldi- 3514-02-1, Alanine, N,N'-tridecanedioyldi- (preparation of)  
 IT 302-72-7, Alanine, DL- (reaction with dicarboxylic acids)  
 IT 3309-42-0, Alanine, N,N'-sebacyoyldi- 3309-43-1, Alanine, N,N'-undecanedioyldi- 3514-02-1, Alanine, N,N'-tridecanedioyldi- (preparation of)  
 RN 3309-42-0 HCPLUS  
 CN Alanine, N,N'-sebacyoyldi-, DL- (8CI) (CA INDEX NAME)



RN 3309-43-1 HCAPLUS  
CN Alanine, N,N'-undecanedioyl di-, DL- (8CI) (CA INDEX NAME)



RN 3514-02-1 HCPLUS  
CN Alanine, N,N'-tridecanedioyl di- (7CI, 8CI) (CA INDEX NAME)

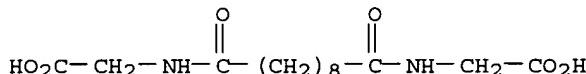


L36 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1959:122024 HCAPLUS  
 DN 53:122024  
 OREF 53:21885a-d  
 ED Entered STN: 22 Apr 2001  
 TI Hetero-chain polyamides. IX. Preparation of polyamides and polyamidoesters from bis(oxazolones)  
 AU Frunze, T. M.; Korshak, V. V.; Kozlov, L. V.  
 CS Inst. Heteroorg. Compds., Moscow  
 SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1959) 535-9  
 CODEN: IASKA6; ISSN: 0002-3353  
 DT Journal  
 LA Unavailable  
 CC 10G (Organic Chemistry: Heterocyclic Compounds)  
 AB cf. C.A. 52, 21216i. Reaction of bis(oxazolones) with diamines, glycols or amino alcs. yields polyamides or, resp., poly(amide esters). Reaction of 22.5 g. glycine in 150 ml. H<sub>2</sub>O and 12 g. KOH and 35 g. K<sub>2</sub>CO<sub>3</sub> with 30 g. sebacyl dichloride in 80 ml. dioxane at 0° gave 56% N,N'-sebacylbis(aminoacetic acid), m. 200-2° (from H<sub>2</sub>O); this heated with Ac<sub>2</sub>O gave 2,2'-octamethylenebis[5(4H)-oxazolone], m. 186-8°. Similarly, were prepared known 2,2'-p-phenylenebis[5(4H)-oxazolone] (I) and 2,2'-p-phenylenebis[4-isobutyl-5(4H)-oxazolone] (II) the first of which with MeOH-NaOH gave di-Me ester of N,N'-terephthaloylbis(aminoacetic acid), m. 148-50°. These were condensed in pyridine or CHCl<sub>3</sub> with hexamethylenediamine, ethanolamine, ethylene glycol, the reactions with glycol or amino alc. requiring heating for 100 hrs. The products melted below 200°, except for the polyamide from I and hexamethylenediamine which decompose 320°, the polyamide from II and the above diamine (m. 280-6°) and amide ester from II and ethanolamine (m. 200-5°). The thermomech. curves of the products are shown. Heating 3 g. di-Meterephthalate and 1.79 g. hexamethylenediamine with 4.05 g. leucine in cresol 7 hrs. at 230° in N stream gave a polyamide, m. 200-20°, soluble in cresol. Heating 0.4 g. sebamic acid, 0.52 g. leucine and 0.23 g. hexamethylenediamine 36 hrs. at 240° gave a polyamide, m. 150-60°, soluble in cresol.  
 IT Alcohols  
 (amino, reaction with 2,2'-alkylenebis(2-oxazolin-5-ones))  
 IT Amides

10

(extrusion masses of, heterochain)

- IT Amines  
 (reactions of di-, with 2,2'-alkylenebis(2-oxazolin-5-ones))
- IT Glycols  
 (reactions of, with 2,2'-alkylenebis(2-oxazolin-5-ones))
- IT 497-24-5, 2-Oxazolin-5-one  
 (2,2'-alkylenebis, reaction with amino alcs., diamines and glycols)
- IT 32669-30-0, 2-Oxazolin-5-one, 2,2'-p-phenylenebis[4-isobutyl-  
 47233-57-8, Glycine, N,N'-terephthaloyldi-, dimethyl ester 66561-16-8,  
 2-Oxazolin-5-one, 2,2'-p-phenylenebis- 100876-62-8, 2-Oxazolin-5-one,  
 2,2'-octamethylenebis- 109477-56-7, Glycine, N,N'-sebacylidi-  
 (preparation of)
- IT 107-21-1, Ethylene glycol  
 (reaction products of, with 2,2'-alkylenebis(2-oxazolin-5-ones))
- IT 61-90-5, Leucine 111-20-6, Sebamic acid 120-61-6, Terephthalic acid,  
 dimethyl ester 124-09-4, 1,6-Hexanediamine 141-43-5, Ethanol, 2-amino-  
 (reaction products with 2,2'-alkylenebis(2-oxazolin-5-ones))
- IT 109477-56-7, Glycine, N,N'-sebacylidi-  
 (preparation of)
- RN 109477-56-7 HCAPLUS
- CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1959:122023 HCAPLUS

DN 53:122023

OREF 53:21884g-i,21885a

ED Entered STN: 22 Apr 2001

TI Amino acetals with muscarine-like action

AU Fourneau, J. P.; Menin, Colette; Beauvillain, A.

CS Lab. Houde, Paris

SO Annales Pharmaceutiques Francaises (1958), 16, 630-8

CODEN: APFRAD; ISSN: 0003-4509

DT Journal

LA Unavailable

CC 10G (Organic Chemistry: Heterocyclic Compounds)

AB BrCH<sub>2</sub>CH(OEt)<sub>2</sub> was allowed to stand with 1. equivalent diol and 5 drops concentrated HCl overnight, the alc. distilled, and the cyclic bromo-acetal fractionated in vacuo to give 83% 2-bromomethyl-4-methyldioxolane, b42 95-7°, and 80% 2-bromomethyl-4,5-dimethyldioxolane, b33 96-8°. Heating 1 mole of the latter bromo acetal in a sealed tube with 3.1 moles Me<sub>2</sub>NPh as 33% solution in C<sub>6</sub>H<sub>6</sub> 5 hrs. at 130°, filtering, washing with C<sub>6</sub>H<sub>6</sub>, distilling the excess Me<sub>2</sub>NPh, dissolving the residue in dilute AcOH in the cold, washing with Et<sub>2</sub>O with cooling, adding NaOH, extracting with Et<sub>2</sub>O, drying, evaporating, and distilling in vacuo gave 65% 2-dimethylaminomethyl-4-methyldioxolane, b33 80-2°, and 73% 2-dimethylaminomethyl-4,5-dimethyldioxolane, b32 85°. MeI salts were prepared by adding excess MeI to the base in Me<sub>2</sub>CO: 2-trimethylammoniummethyl-4-methyldioxolane iodide m. 134°; 2-trimethylammoniummethyl-4,5-dimethyldioxolane iodide m. 176°. The 1st of the ammonium compds. had a strong muscarine-like action, the 2nd was less potent.

IT Acetals

(amino, with muscarine-like action)

IT 300-54-9, Muscarine (alkaloid)

(-like substances, amino acetals of)

IT 69048-52-8, 1,3-Dioxolane, 2-(bromomethyl)-4-methyl- 69088-42-2,  
 1,3-Dioxolane, 2-(bromomethyl)-4,5-dimethyl- 100869-04-3,  
 1,3-Dioxolane-2-methylamine, N,N,4-trimethyl- 101259-01-2,  
 1,3-Dioxolane-2-methylamine, N,N,4,5-tetramethyl- 110358-24-2, Ammonium,  
 (4,5-dimethyl-1,3-dioxolan-2-ylmethyl)trimethyl-, iodide 118633-69-5,

Ammonium, trimethyl(4-methyl-1,3-dioxolan-2-yl-methyl)-, iodide  
(preparation of)

=> b uspatall  
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CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 14:56:14 ON 31 JAN 2006  
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitstr hitrn 132 tot

L32 ANSWER 1 OF 4 USPATFULL on STN

AN 2000:142522 USPATFULL

TI Fibrous assembly of peptide lipid and method for the preparation thereof  
IN Kogiso, Masaki, Tsukuba, Japan  
Shimizu, Toshimi, Tsukuba, Japan

PA Japan as represented by Director General of Agency of Industrial Science  
and Technology, Tokyo-to, Japan (non-U.S. corporation)

PI US---6136956

20001024

AI 1999US-0261156

19990303 (9)

PRAI 1998JP-0062548

19980313

DT Utility

FS Granted

EXNAM Primary Examiner: Low, Christopher S. F.; Assistant Examiner: Mohamed,  
Abdel A.

LREP Wenderoth, Lind & Ponack, L.L.P.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 459

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a fine fibrous assembly having a molecular structure of a bola-form peptide lipid containing L- or D-valine residues which can be obtained by spontaneous crystallization precipitation when an aqueous solution of the peptide lipid compound of the general formula ##STR1## in which Me is a methyl group, the subscript m is 1, 2 or 3 and the subscript n is a positive integer in the range from 6 to 18, in the form of an alkali metal salt is kept standing over days under an atmosphere of a saturated vapor over a dilute aqueous solution of a vaporizable acid such as acetic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

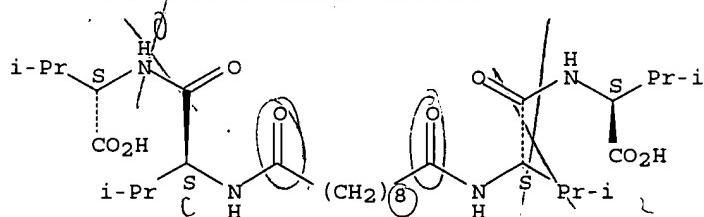
IT 214075-06-6

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

RN 214075-06-6 USPATFULL

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 214075-06-6 250266-83-2 250266-84-3

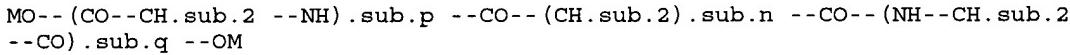
250266-85-4

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

IT 214075-07-7P  
 (preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

L32 ANSWER 2 OF 4 USPATFULL on STN  
 AN 2000:24314 USPATFULL  
 TI Oligoglycine compound, fibrous microtube of oligoglycine compound and process of producing fibrous microtube  
 IN Shimizu, Toshimi, Tsukuba, Japan  
 Kogiso, Masaki, Tsukuba, Japan  
 Masuda, Mitsutoshi, Matsudo, Japan  
 PA Director-General of Agency of Industrial Science and Technology, Japan (non-U.S. corporation)  
 PI US---6030640 20000229  
 AI 1998US-0184631 19981103 (9)  
 RLI Division of Ser. No. 1997US-0916375, filed on 22 Aug 1997, now patented, Pat. No. US---5876748  
 PRAI 1996JP-0227974 19960829  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Nutter, Nathan M.  
 LREP Lorusso & Loud  
 CLMN Number of Claims: 3  
 ECL Exemplary Claim: 1  
 DRWN 2 Drawing Figure(s); 2 Drawing Page(s)  
 LN.CNT 432  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

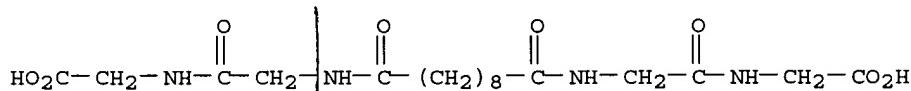
AB A lipid represented by the following formula:



wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3  $\mu\text{m}$  and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3  $\mu\text{m}$  is formed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P  
 (preparation of oligoglycine fibrous microtubes)  
 RN 200282-87-7 USPATFULL  
 CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)]



IT 200282-87-7P 200282-88-8P  
 (preparation of oligoglycine fibrous microtubes)

L32 ANSWER 3 OF 4 USPATFULL on STN  
 AN 1999:65321 USPATFULL  
 TI Oligoglycine compound, fibrous microtube of oligoglycine compound and process of producing fibrous microtube  
 IN Shimizu, Toshimi, Tsukuba, Japan  
 Kogiso, Masaki, Tsukuba, Japan  
 Masuda, Mitsutoshi, Matsudo, Japan  
 PA Director-General of Agency of Industrial Science and Technology, Japan (non-U.S. corporation)  
 PI US---5910565 19990608

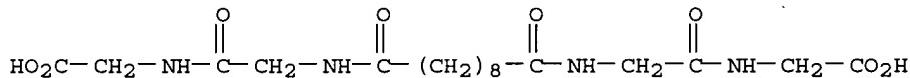
AI 1998US-0184632 19981103 (9)  
 RLI Division of Ser. No. 1997US-0916375, filed on 22 Aug 1997, now patented,  
 Pat. No. US---5876748  
 PRAI 1996JP-0227974 19960829  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Nutter, Nathan M.  
 LREP Lorusso & Loud  
 CLMN Number of Claims: 2  
 ECL Exemplary Claim: 1  
 DRWN 2 Drawing Figure(s); 2 Drawing Page(s)  
 LN.CNT 418  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A lipid represented by the following formula:

$\text{MO}-(\text{CO}-\text{CH}_{\text{sub.2}}-\text{NH})_{\text{sub.p}}-\text{CO}-(\text{CH}_{\text{sub.2}})_{\text{sub.n}}-\text{CO}-(\text{NH}-\text{CH}_{\text{sub.2}}-\text{CO})_{\text{sub.q}}-\text{OM}$

wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3  $\mu\text{m}$  and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3  $\mu\text{m}$  is formed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P  
 (preparation of oligoglycine fibrous microtubes)  
 RN 200282-87-7 USPATFULL  
 CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



IT 200282-87-7P 200282-88-8P  
 (preparation of oligoglycine fibrous microtubes)

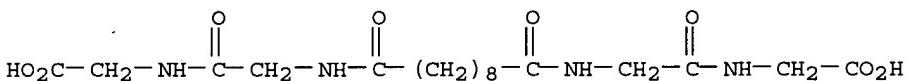
L32 ANSWER 4 OF 4 USPATFULL on STN  
 AN 1999:27215 USPATFULL  
 TI Fibrous microtube of oligoglycine compound  
 IN Shimizu, Toshimi, Tsukuba, Japan  
 Kogiso, Masaki, Tsukuba, Japan  
 Masuda, Mitsutoshi, Matsudo, Japan  
 PA Director-General of Agency of Industrial Science And Technology, Japan  
 (non-U.S. corporation)  
 PI US---5876748 19990302  
 AI 1997US-0916375 19970822 (8)  
 PRAI 1996JP-0227974 19960829  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Nutter, Nathan M.  
 LREP Lorusso & Loud  
 CLMN Number of Claims: 8  
 ECL Exemplary Claim: 1  
 DRWN 2 Drawing Figure(s); 2 Drawing Page(s)  
 LN.CNT 434  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A lipid represented by the following formula:

$\text{MO}-(\text{CO}-\text{CH}_{\text{sub.2}}-\text{NH})_{\text{sub.p}}-\text{CO}-(\text{CH}_{\text{sub.2}})_{\text{sub.n}}-\text{CO}-(\text{NH}-\text{CH}_{\text{sub.2}}-\text{CO})_{\text{sub.q}}-\text{OM}$

wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3  $\mu\text{m}$  and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3  $\mu\text{m}$  is formed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P  
 (preparation of oligoglycine fibrous microtubes)  
 RN 200282-87-7 USPATFULL  
 CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



IT 200282-87-7P 200282-88-8P  
 (preparation of oligoglycine fibrous microtubes)

=> d bib abs hitstr l33 tot

L33 ANSWER 1 OF 1 USPATFULL on STN  
 AN 97:12502 USPATFULL  
 TI Anti-obesity drugs  
 IN Shinitzky, Meir, Kfar Shmaryahu, Israel  
 Shenfeld, Avner, Rehovot, Israel  
 PA Senyorina Ltd., Kfar Shmaryahu, Israel (non-U.S. corporation)  
 PI US---5602164 19970211  
 AI 1996US-0616948 19960318 (8)  
 RLI Continuation of Ser. No. 1995US-0524961, filed on 8 Sep 1995 which is a continuation-in-part of Ser. No. 1994US-0325422, filed on 19 Dec 1994, now abandoned  
 PRAI 1992IL-0101708 19920428  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Jordan, Kimberly  
 LREP Sprung Horn Kramer & Woods  
 CLMN Number of Claims: 2  
 ECL Exemplary Claim: 1  
 DRWN 4 Drawing Figure(s); 4 Drawing Page(s)  
 LN.CNT 256

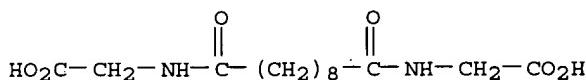
See  
 other  
 S/pq.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Obesity is treated by the administration to a subject of a compound having the general formula (I): R.<sub>sub.4</sub> --(CH.<sub>sub.2</sub>).<sub>sub.n</sub>--CO--N(R.<sub>sub.1</sub>)--CH(R.<sub>sub.2</sub>)--CO(--R.<sub>sub.3</sub>), wherein R.<sub>sub.1</sub> represents H or CH.<sub>sub.3</sub>; R.<sub>sub.2</sub> represents a side chain of a naturally occurring amino acid; R.<sub>sub.3</sub> represents OH, OCH.<sub>sub.2</sub> CH.<sub>sub.3</sub> and NH.<sub>sub.2</sub>; n is 6-18; and R.<sub>sub.4</sub> represents CH.<sub>sub.3</sub> or a group having the general formula (II): R.<sub>sub.3</sub> --CO--CH(R.<sub>sub.2</sub>)--N(R.<sub>sub.1</sub>)--CO--, wherein R.<sub>sub.1</sub>, R.<sub>sub.2</sub> and R.<sub>sub.3</sub> have the above meanings. The compounds of formula (I) wherein R.<sub>sub.4</sub> is a group of formula (II), are novel compounds.

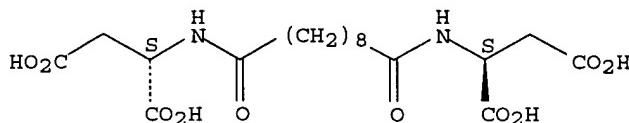
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 109477-56-7P 152510-19-5P 152510-20-8P  
 152510-21-9P 152510-58-2P  
 (antiobesity drug, preparation of)  
 RN 109477-56-7 USPATFULL  
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



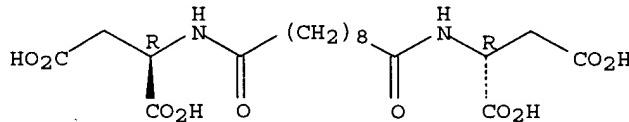
RN 152510-19-5 USPATFULL  
 CN L-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



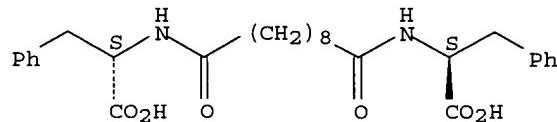
RN 152510-20-8 USPATFULL  
 CN D-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.

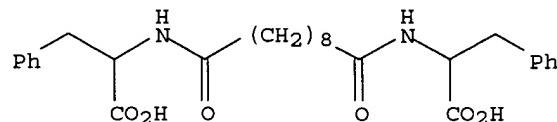


RN 152510-21-9 USPATFULL  
 CN L-Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



RN 152510-58-2 USPATFULL  
 CN Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX  
 NAME)



=> b hcao  
 FILE 'HCAOLD' ENTERED AT 14:57:23 ON 31 JAN 2006  
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PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING  
FILE COVERS 1907-1966  
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d all 134 tot

L34 ANSWER 1 OF 2 HCAOLD COPYRIGHT 2006 ACS on STN

AN CA63:13395b CAOLD  
TI photochemistry of aromatic amino acids in H3BO3  
AU Santus, Rene; Guermonprez, R.; Ptak, M.  
IT 3309-42-0 3309-43-1 3309-44-2  
3514-02-1

L34 ANSWER 2 OF 2 HCAOLD COPYRIGHT 2006 ACS on STN

AN CA53:21885a CAOLD  
TI hetero-chain polyamides - (IX) preparation of polyamides and polyamidoesters from bis(oxazolones)  
AU Frunze, T. M.; Korshak, V. V.; Kozlov, L. V.  
IT 32669-30-0 47233-57-8 66561-16-8 100876-62-8 109477-56-7

=> b reg;d ide can 137 tot

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STRUCTURE FILE UPDATES: 30 JAN 2006 HIGHEST RN 873057-98-8  
DICTIONARY FILE UPDATES: 30 JAN 2006 HIGHEST RN 873057-98-8

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TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and

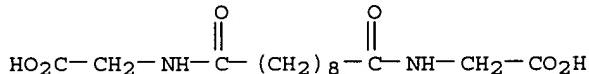
*D*

predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

*Reg,*

<http://www.cas.org/ONLINE/UG/regprops.html>

L37 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 109477-56-7 REGISTRY  
 ED Entered STN: 25 Jul 1987  
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Glycine, N,N'-sebacyldi- (6CI)  
 FS 3D CONCORD  
 MF C14 H24 N2 O6  
 CI COM  
 SR CAOLD  
 LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CHEMCATS, RTECS\*, TOXCENTER,  
 USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

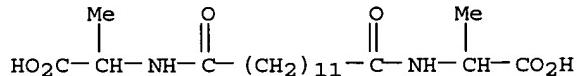
REFERENCE 1: 140:386000

REFERENCE 2: 120:69611

REFERENCE 3: 117:172062

REFERENCE 4: 53:122024

L37 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 3514-02-1 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Alanine, N,N'-tridecanedioyldi- (7CI, 8CI) (CA INDEX NAME)  
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 MF C19 H34 N2 O6  
 LC STN Files: CA, CAOLD, CAPLUS

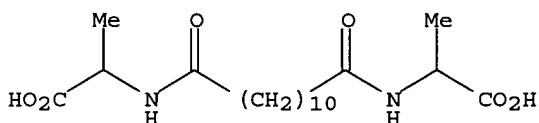


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
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 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

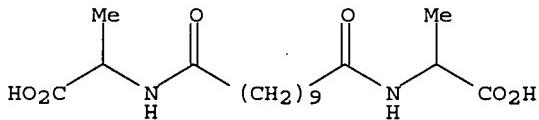
L37 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 3309-44-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
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OTHER CA INDEX NAMES:  
CN Alanine, N,N'-dodecanedioyldi- (7CI)  
CN Alanine, N,N'-dodecanedioyldi-, DL- (8CI)  
MF C18 H32 N2 O6  
LC STN Files: CAOLD



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L37 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 3309-43-1 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Alanine, N,N'-undecanedioyldi-, DL- (8CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Alanine, N,N'-undecanedioyldi- (7CI)  
MF C17 H30 N2 O6  
LC STN Files: CA, CAOLD, CAPLUS

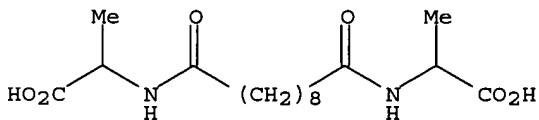


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

L37 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 3309-42-0 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Alanine, N,N'-sebacoyleyldi-, DL- (8CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Alanine, N,N'-sebacoyleyldi- (7CI)  
MF C16 H28 N2 O6  
LC STN Files: CA, CAOLD, CAPLUS



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

=> d his

(FILE 'HOME' ENTERED AT 13:52:44 ON 31 JAN 2006)

FILE 'HCAPLUS' ENTERED AT 13:53:27 ON 31 JAN 2006  
 L1 1 (US2005-530198# OR JP2003-160291# OR JP2002-293533# OR WO2003-J  
     E MATSUZAWA Y/AU  
 L2 106 E3  
     E MATSUZAWA YOKO/AU  
 L3 43 E3  
     E YOKO M/AU  
     E MATSUMOTO M/AU  
 L4 720 E3-4  
     E MATSUMOTO MUTSUYOSHI/AU  
 L5 221 E3  
     E MUTSUYOSHI M/AU  
     E KOGISO M/AU  
 L6 23 E3, E6  
     E MASAKI K/AU  
 L7 107 E3-4  
     E MASAKI KOGISO/AU  
     E SHIMUZI T/AU  
     E SHIMUZU T/AU  
     E SHIMIZU T/AU  
 L8 718 E3-5  
     E SHIMIZU TOSHIMI/AU  
 L9 213 E3  
     E TOSHIMI S/AU  
 L10 12696 (NATION? (L)ADV? (L)IND? (L)SCI? (L)TECH?)/CS, PA

FILE 'REGISTRY' ENTERED AT 14:02:29 ON 31 JAN 2006

FILE 'HCAPLUS' ENTERED AT 14:02:33 ON 31 JAN 2006  
 L11 TRA L1 1- RN : 3 TERMS

FILE 'REGISTRY' ENTERED AT 14:02:33 ON 31 JAN 2006  
 L12 3 SEA L11  
 L13 STR  
 L14 SCR 2009 AND 1993 AND 1313 AND 1701  
 L15 STR L13  
 L16 0 L15  
     SEL RN 1 L12  
 L17 1 E1 AND L12

FILE 'HCAPLUS' ENTERED AT 14:30:05 ON 31 JAN 2006  
 L18 8 L17  
 L19 8 L18 AND L1-10

FILE 'REGISTRY' ENTERED AT 14:30:37 ON 31 JAN 2006  
 L20 STR L15  
 L21 0 L20  
 L22 98 L15 FULL  
 L23 1 L22 AND L12

FILE 'HCAPLUS' ENTERED AT 14:34:10 ON 31 JAN 2006  
 L24 52 L22

L25           18 L24 AND L1-10  
L26           34 L24 NOT L25  
              SEL HIT RN L26

FILE 'REGISTRY' ENTERED AT 14:34:48 ON 31 JAN 2006  
L27           71 E2-72  
L28           69 L27 NOT (COMPD OR COMPOUND)

FILE 'HCAPLUS' ENTERED AT 14:36:48 ON 31 JAN 2006

FILE 'REGISTRY' ENTERED AT 14:37:47 ON 31 JAN 2006  
              SEL RN 3-5 15-17 31-37 55 63 67-69  
L29           18 E73-90 AND L28

FILE 'HCAPLUS' ENTERED AT 14:48:38 ON 31 JAN 2006  
L30           10 L29 AND L26

FILE 'USPATFULL, USPAT2' ENTERED AT 14:49:44 ON 31 JAN 2006  
L31           14 L22  
              SEL AN 7-10  
L32           4 E91-94 AND L31  
L33           1 L29 AND L31

FILE 'HCAOLD' ENTERED AT 14:52:29 ON 31 JAN 2006  
L34           2 L22  
              SEL AN  
              EDIT /AN /OREF

FILE 'HCAPLUS' ENTERED AT 14:52:58 ON 31 JAN 2006  
L35           4 E95-96  
L36           12 L30,L35

FILE 'HCAOLD' ENTERED AT 14:53:39 ON 31 JAN 2006  
              SEL HIT RN L34

FILE 'REGISTRY' ENTERED AT 14:53:53 ON 31 JAN 2006  
L37           5 E97-101

FILE 'REGISTRY' ENTERED AT 14:54:11 ON 31 JAN 2006

FILE 'HCAPLUS' ENTERED AT 14:54:33 ON 31 JAN 2006  
L38           18 L19,L25

&gt;